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The OIL WEEKLY

OIL and GAS ENGINEERING

FOR OIL AND GAS PRODUCTION AND PIPE LINE DIVISIONS

THE WEEK'S NEWS INTERPRETED

AUGUST 22, 1932
Volume 66 Number 10

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PERIODICAL DIVISION

. . . as sure as 2 x 2 are 4

HUGHES

tool joints are *interchangeable*

Certainty of interchangeability is a necessary requirement for maximum tool joint service.

Special threading machines, formed tools made by precision methods, and an elaborate system of master gauges make it possible for every Hughes Joint to be an interchangeable joint.

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Read 'em like a.... BOOK

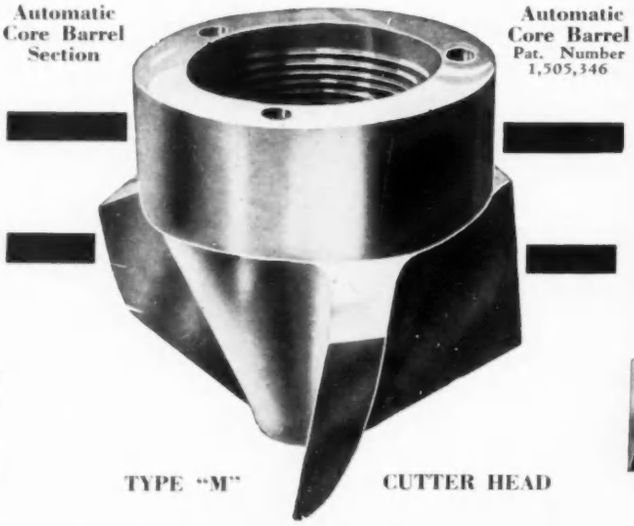
The core you take with the new Brewster Automatic Core Barrel can be read like a book. They are clean, unbroken and free from foreign substances because the inner barrel has been washed clean. This is done by water passing through, but when the coring begins the ports automatically close, and the water is directed around the inner barrel and to the Bit. The position of the valve in the top of the barrel prevents pressure from holding the ball down which permits soft sand core to enter the barrel without resistance.

This barrel, as are Type "C" and Type "M" Barrels, is equipped with the Brewster Split Liner, which permits the core being removed without breaking.

THE BREWSTER COMPANY, INC.

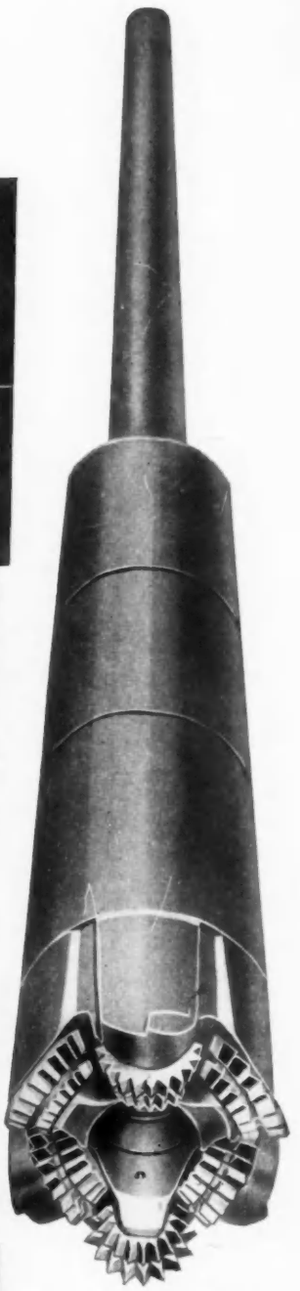
SHREVEPORT, LOUISIANA

Automatic Core Barrel Section



Automatic Core Barrel Pat. Number 1,505,346

TYPE "M" CUTTER HEAD



Barrel Equipped with Roller Head

■ By use of the Type "M" Bit Body ROLLER CUTTER HEADS can be used with Brewster Core Barrels.

Warehouses: The Iverson Specialty Co., Oklahoma City, Oklahoma, Phone 2-2833; The Brewster Houston Store, 2000 Harrington St., Capitol 2031; Longview, Texas, 313 E. Cotton St., Phone 781.

Export Distributors: Acme Well Supply Co., Inc., 136 Liberty Street, New York City.

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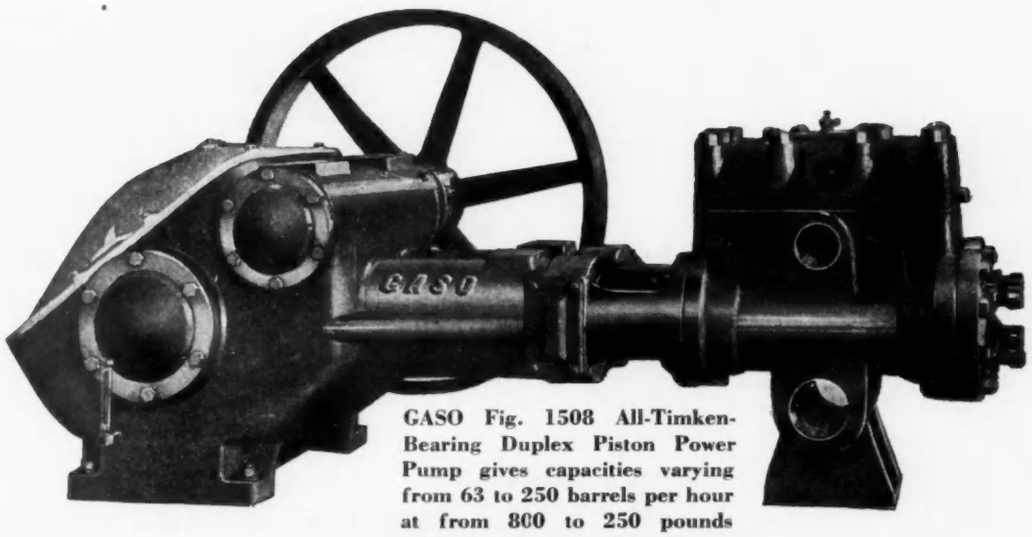
GASO PUMP DESIGN SAVES
• • • • POWER — LESSENS WEAR • • • •

LUBRICATION

in every GASO Pump is dependable because of proper design. In GASO Fig. 1508 Pump, shown below, every moving part is provided with a flood of clean oil at all times. This automatic, thorough lubrication promotes long life, low maintenance cost and minimum consumption of power, and makes these pumps ideal for installation in remote places where frequent attention is difficult and expensive. . . . Gaso Pump & Burner Mfg. Co., Tulsa, Oklahoma.



GASO Fig. 1508 All-Timken-Bearing Duplex Piston Power Pump gives capacities varying from 63 to 250 barrels per hour at from 800 to 250 pounds working pressure. Can be arranged for any type of drive.

GASO PUMPS
for every oil industry need

BALANCE

This illustration is made from an actual photograph of Tru-Lay Preformed Wire Rope. Only in Preformed Wire Rope will the strands and wires stay in position without seizing or tying the end as this photograph reveals.

"High-stranding" and "low-stranding," are wire rope faults well familiar to men who pay the bills for wire rope. Equal strand loads, as obtained in Tru-Lay Preformed Wire Rope, is an important advantage.

PERFECT BALANCE OF TENSION NECESSARY TO INSURE EQUAL LOADING OF STRANDS

A high strand (underloaded) is quickly crushed and destroyed. A low strand (overloaded) soon parts, leading also to rapid wire rope destruction.

In Tru-Lay, strands and wires are preformed to the exact shape they assume in the finished rope structure. They lie naturally in position—inherently adjusted to each other, so when the rope is put to work each strand carries an equal share of the load. Resistance to high and low-stranding is one of the many cardinal reasons why Tru-Lay Preformed Wire Rope wears so much longer.

There is no straightening out tendency in Tru-Lay—no internal stress. This results in less fatiguing action, longer life, easier handling, greater flexibility, just to mention a few of the advantages of TRU-LAY Preformed Wire Rope.

Tru-Lay is furnished in every grade and construction, and gives much longer service over *non*-preformed wire rope of the same grade and construction. Get all the facts.

Write on your business letterhead for your copy of this interesting booklet. It tells, in a non-technical manner, facts about Tru-Lay Preformed Wire Rope that every wire rope buyer should know.

ACCO

AMERICAN CABLE COMPANY, Inc.
New York Central Bldg., 230 Park Ave., New York, N. Y.
An Associate Company of the American Chain Company, Inc.

District Offices:
Emlenton, Pa. Tulsa, Okla. San Francisco, Calif.

TRU-LAY *Preformed* WIRE ROPE
Made in all sizes, lays, grades and constructions

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THE OIL WEEKLY

August 22, 1932
Vol. 66, No. 10

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THE GULF PUBLISHING COMPANY
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S. W. ROBINSON
Editor

CONTENTS

Special Features

Proration Violation Expected to Show Decline in East Texas Pressure 9

Standard of Kansas to Sell Refinery to Indiana Standard 9

Improvement Reflected in Bureau of Mines Figures for June .. 10
By H. J. Struth

Fourteen Companies for First Six Months Show 15 Million Earnings 10

Utilization Proponents Fail to Accomplish Plan For Hobbs Pool 12

Refiners Only Able to Reduce Gasoline Stocks Two Days 12

Ventura Well Below 9700 Feet Presents No Real Problem 13
By Brad Mills

South Texas' Newest Field Placed Under Commission Proration Order 16

Uses Heater for Breaking Emulsion 27

The Burbank Sand of Kansas and Oklahoma 29
By Gene Weirick

Monograph for Weymouth Formula for Natural Gas Flow 30
By Leonard L. Hohl

Methods for the Inspection of Buried Pipe 31
By Stanley Gill

Regular Departments

Advertisers' Index 62
The Changing Panorama 7
Markets-Production-Crude Prices 19
United States Production Estimates 19
Crude Oil Price Quotations 22
California Fields 37
Oklahoma Fields 40
Kansas Fields 43
East Central Texas 44
North and West Texas 49
South Texas 50
Gulf Coastal Fields 52
New Mexico and Rocky Mountain 56
Louisiana Fields 55
Arkansas Fields 55
Southeastern States 57
Eastern States 57
Michigan Fields 54
News of Equipment Makers 60
Men in the Industry's News 18
New Equipment, Bulletins, Books 59
Squeaks from the Bull Wheel 61

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Advertising

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A product or service, that is not of benefit to the user, cannot withstand the glaring light of advertising.

Manufacturers who continue to advertise through prosperity and slump, are those whose products have proven their worth by years of useful service. They are the ones in whom you can place full confidence, and depend upon to deliver value in its fullest measure.

The advertisements of such concerns are found in this magazine. Read them—study their message. You can be confident of buying dependable products from these progressive advertisers.

READ

the constructive advertisements in this issue

If it's worth making .... it's worth advertising

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VOLUME 66, No. 10 AUGUST 22, 1932

THE OIL WEEKLY

FOR OIL AND GAS PRODUCTION AND
PIPE LINE DIVISIONS

ENGINEERING • NEWS • STATISTICS

The Changing Panorama

Tax collections from lubricating oil, gasoline and pipe lines during the last ten days of June exceeded $600,000, it is disclosed by the first returns under the new revenue act, made public by the Internal Revenue Bureau.

Collections from gasoline totaled $539,461.45, the bureau announced, while $60,395.77 was collected from lubricating oils and $41,843.41 from pipe lines. No taxes were collected from imported crude oil, due apparently to the fact that large cargoes were entered just before the last tax went into effect on June 21.

Despite the collection of several million dollars under the new tax law, receipts from all sources during July, totaling $61,686,000, were $12,500,000 under the collections for the same month last year, it was shown.

Car Registration Down

Automobile owners of the United States are wearing out two cars and part of a third one for each new machine they are buying. That is the conclusion reached from estimates of registrations for July against estimates of how fast the American automobile goes to the junk heap.

Registrations in July, 1932, in 22 states were for only 36,283 automobiles in these states. In June the same states reported 48,677 new automobiles. Based on the July registrations for these 22 states R. L. Polk and Company estimates that 104,000 new cars of all classes were registered for the whole country in that month.

But those who calculate the abandonment of the American automobile say that 8000 cars fall into the hands of the junk dealers each day. If that is the case there were 248,000 automobiles thus removed from service while 104,000 were being added to the highways.

"Dig 'er wide and dig 'er deep," advised Chick Sale in the "Specialist." He was speaking of the excavations of outbuildings of certain types. Such also is the advice of Stanley Gill concerning the bell-hole that is essential to the proper inspection of a buried pipe line. This is the second paper of a series by Mr. Gill. In this one he takes up the methods of inspection and the bell-

WHEN A PIPE LINE GOES AERIAL

Stringing cables on a gas line suspension bridge across the Missouri River. This bridge established a new record for clear span between towers on pipe line bridge construction.

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The advertisements of such concerns are found in this magazine. Read them—study their message. You can be confident of buying dependable products from these progressive advertisers.

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WHAT PRICE CROOKED HOLES?

ALTHOUGH there has been a great deal of speculation on how much a crooked hole affects lifting costs when the well goes on the pump, up until just recently no definite data on this subject had ever been developed.

Appreciating the fact that definite information along this line would be of real value to the industry, THE OIL WEEKLY sought the co-operation of a well known surveying company and two major operators to make the necessary tests.

Six wells ranging in depth from 3,000 to 3,500 feet and six wells ranging below 6,000 feet have therefore been surveyed to develop the necessary information. In each of the two sets of wells three wells with low lifting costs and three with high lifting costs were chosen, wells on which lifting cost records had been maintained for a considerable period.

These tests have been completed and results compared. What the experiment revealed—the first ever attempted along these lines insofar as THE OIL WEEKLY can learn, will be given in an article which will appear in the next issue of THE OIL WEEKLY.

The results take the relation of costs between crooked holes and straight holes out of the realm of speculation and place this relation under the heading of "definitely known!"

Watch for THE OIL WEEKLY Next Week!

hole is the first requirement, for he contends that a proper inspection is possible only by the means of having good vision of the whole circumference of the pipe. Page 31.

Like other sands of Oklahoma, the Burbank is an erratic formation in which non-persistence is the rule rather than the exception. Occurrences of this formation as well as its characteristics as a body and the structural conditions surrounding it are presented by Gene Weirick, Tulsa geologist. In the Creek-Okmulgee area this sand, known as the Red Fork, occurs in small isolated bodies. To the northeast it covers an area of 1200 square miles. Again in Kansas forms the "shoe string" types. Page 25.

Fighting water at Smackover is nothing new. The fight usually is made after the oil has been produced, for emulsions must be broken down in many instances. A portable heating device has been designed by the Phillips Petroleum Company. According to need the units may be set up at tank batteries. Page 23.

June figures from the Bureau of Mines offer evidence that the petroleum industry is slowly correcting its economic structure, although there are several weak spots. The June tabulations reveal marked decline in crude output, refinery output and increased gasoline consumption, as measured by shipments from refineries. But the Federal tax on gasoline stimulated shipments from refineries and there was a drop in consumption for July, not yet shown in Bureau of Mines totals.

After the press began to publish reports of oil thefts in prorated fields, Oklahoma City in particular, the military authorities promptly went out and found some secret pump stations. Lieutenant Colonel Cicero I. Murray, cousin of the Oklahoma governor, says there is no more oil stealing at Oklahoma City, at least very little. He has turned evidence of the secret pump stations over to the Corporation Commission.

The Oil Man's Calendar

AUGUST

22-26 *American Chemical Society, Denver, Colorado.*
23-26 *Pacific Coast Gas Association, Spokane, Washington, Hotel Davenport.*

SEPTEMBER

14-16 *30th Annual Meeting, National Petroleum Assn., Atlantic City, N. J., Hotel Traymore.*
21-22 *Ohio Petroleum Marketers Association, Columbus, Ohio, Deshler-Wallick Hotel.*
21-23 *7th Annual Meeting North American Gasoline Tax Conference, Philadelphia, Pennsylvania.*

OCTOBER

1 *American Institute of Mining and Metallurgical Engineers, Petroleum Division, Ponca City, Oklahoma.*
3- 7 *National Safety Council, Washington, D. C.*
4- 6 *Society of Automotive Engineers, Transportation Meeting, Toronto, Canada.*
10-14 *Annual Convention, American Gas Association, Atlantic City, N. J.*
11-12 *Kentucky Petroleum Marketers Association, Louisville, Kentucky.*
? *American Society of Mechanical Engineers, (Fuel Division), Chicago, Illinois.*

NOVEMBER

10 *California Natural Gasoline Association, Los Angeles, California.*
15-17 *Thirteenth Annual Meeting, American Petroleum Institute, Houston, Texas, Rice Hotel.*

DECEMBER

5- 9 *American Society of Mechanical Engineers, New York, N. Y.*
? *Rocky Mountain Oil and Gas Association, Great Falls, Montana, Rainbow Hotel.*

Proration Violation *Expected to Show Decline in* East Texas Pressure

TYLER, TEXAS, August 19.

CONTINUED widespread violation of proration restrictions in the East Texas field is expected to result in an abnormal decline in reservoir pressure when the usual readings are taken from 250 key wells scattered over the structure late this month. Engineers in close touch with the situation forecast an average drop of about 20 pounds for the 60-day period ending August 25, as compared to a decline of 13 pounds average credited for the previous period, and 10 pounds average loss during the period ending April 25. Gregg County section of the field is the source of the greatest amount of illegal production, and in the past has reflected the highest average bottom hole pressure.

This let down on proration enforcement will not be checked until after the state-wide election is held on August 27. In the meantime state employes on enforcement duty are inclined to disregard the activities of most of the violators, but are preserving evidence that may be used later in filing charges. One of the leading refinery units in the field were alleged to have been detected running a controlled property in excess of the proration allowance last week. The increased volume of oil is reflected by a gain in weekly tank car shipments of oil from the district, while it is charged that large quantities of unaccounted for oil is being switched out of the district before shipping instructions are issued, thereby escaping the rule that requires an accounting on such oil movements. The railroads are credited with co-operating in order to bolster their loadings.

Bottom hole water has put in its appearance at an unusually high depth above sea level on the northwest edge of the field and in Upshur County. P. C. Dean and Albert Adkisson, Fort Worth operators, completed their O. M. Victory 3, located in southeast corner of 60-acre lease, E. A. J. Evans Survey, about July 23, flowing by heads from about 12 feet of sand. The well has a total depth of 3306 feet below sea level, and failed to make its allowable. Standard rig has been installed to place on pump. In the meantime the production is showing about three per cent salt water, which is identified as bottom hole water based on laboratory analysis authorized by the well owners, who were at first inclined to believe that the water was returns from drilling fluid.

Another freakish water development is the appearance of about 35 per cent salt water in Frank Russell et al's E. Duncan 1, located on block 188, Kilgore townsite, and the east edge of production, while flowing its proration allowance. A faulty string of casing or seat is generally believed to be responsible for this water intrusion, as the bottom of the hole is 3241 feet below sea level.

Plugging orders have been issued for two more east side tests in the Longview area that failed to encounter sand in paying quantities, and the outpost of Lovett and Norris on the Rufus Smith tract, R. Slaughter Survey, is in a doubtful class. Smith 1 is located about one-half mile from production. Only minor traces of oil was revealed in core taken at 3596-3610 feet in shale, ash and thin streaks of sand, with an elevation of 318 feet. Feazel, W. T. Mack et al's R. S. McKinley 1, located in northwest corner of 37-acre lease farmed out by Amerada Petroleum Corporation in the north central portion of the Robinson Survey, proved dry after drilling into Georgetown lime at 3609-12 feet. Corbin and Cupp's J. H. Alexander 1, located east of the Pine Hill community, D. Sanches Survey, also made a failure with the hole bottomed in Georgetown lime at 3593-3601 feet. Arkansas Fuel Oil Company's J. D. Davis 1 widened the productive area at Pine Hill one location to the east with an initial flow of 22½ barrels oil first 15 minutes via open 2½-inch tubing at 3586-3594 feet.

L. C. Collins of Tyler et al's Caddie Fisher 1, located in southwest corner of 133.22-acre lease, farmed out by Shell Petroleum Corporation for a 5/16 overriding royalty interest, appears to be a cinch for a producer after having scored a favorable drill stem test at 3440-3468 feet. It is in the southeast part of the John Ruddle Survey, and on the east edge of the Longview area.

Mid-Kansas Oil & Gas Company has ascended to the position of leader on volume of drilling activity in the East Texas field, having 162 completed wells,

(*Continued on page* 45)

Standard of Kansas *to Sell Refinery* To Indiana Standard

Tulsa, Okla., Aug. 19.—Although official announceemnt has not been made it is definitely known that officials of Standard Oil Company of Indiana and Standard Oil Company of Kansas reached agreements whereby the Indiana company is to purchase, pending approval of the stockholders, the refinery at Neodesha and all lines serving it. It is understood that Standard of Kansas is to receive approximately $3,400,000 based on a valuation by Arthur Young and Company, although preliminary reports indicated that the transaction would be made on the basis of a stock exchange. Standard of Kansas had 327,000 shares of common stock outstanding as of December 31, 1931.

After reorganization the company will continue as a producer having some production at present and large holdings of undeveloped acreage in western Kansas.

In event that officials of Standard of Kansas are successful in obtaining approval of 85 per cent of the stockholders as required by Kansas law the new arrangement will be beneficial to both interests. Standard of Kansas has long held a contract under which the Indiana company has purchased most of the output of the Neodesha plant. Under this arrangement it was not necessary for the Kansas company to establish extensive marketing facilities. The contract was to have been terminated at the end of this year and it is understood that disagreement between the two companies resulted in the recent sale of approximately four million gallons of low octane motor fuels at less than the market price by Standard of Kansas. This move apparently was the first step in a war which might have proved disastrous to the Mid-Continent market.

Improvement Reflected *In Bureau On Mines Figures* for June

H. J. STRUTH
Petroleum Economist, Houston, Texas

THE extent to which the oil situation has improved during the second quarter of this year is emphasized by the June report of the United States Bureau of Mines. A summation of the vital factors that have been responsible for promoting material financial improvement in the petroleum industry, reveals changes that completely justify the turn for the better that has manifested itself in the industry's price structure since April 1. From a supply and demand standpoint, the first six months of 1932 marked a period of constructive developments that are reflected in the appreciation of values shown in the accompanying barometer, in comparison with the same period of last year.

While the comparative figures show material improvement on the whole, there are still a number of factors which must be corrected before the industry is definitely past the danger of market weakness. The figures for June showed a marked decline in output of both crude and refined products, as well as substantial withdrawals from storage. Demand, particularly for gasoline, showed an increase over the same month of last year; domestic consumption having exceeded last year's total by about one per cent. However, June was an unusual month for refiners, with pre-tax gasoline buying dominating the picture. The subsequent slump in gasoline shipments, yet to be recorded in official form, offset to a large extent the improvements recorded in June. In fact, gasoline shipments dropped off sharply in July, creating an excess supply during the first 15 days of the month.

Domestic gasoline consumption for the first half of this year shows a decline under the same period of last year of 5.3 per cent. However, the unusual rate of demand experienced in June was responsible for a more favorable showing than would otherwise have been recorded were it not for the gasoline buying rush prompted by the imposition of the Federal tax at the refinery. It is obvious that the final results for this year will show a loss in gasoline consumption for all purposes of at least eight per cent. The loss in foreign business, along with the drop in domestic consumption, for the first half of this year already amounts to six per cent. Yet, refinery prices have held up well and financial reports for the first half of this year reveal decided improvement.

It will be noted that a majority of the supply factors are well under the rates of a year ago. Market values have shown a sharp increase in contrast to values which prevailed at this time last year. Prices are, on the average, more than 100 per cent above the levels of this time last year. The falling off in demand for gasoline and crude oil has been more than offset by curtailment of production of both crude and refined products. In fact, the only reason for any uncertainty over the immediate market outlook is found in continued over-production of refined products. Yet, recent attempts to reduce refining operations are apparently beginning to show results, since still runs have been reduced to a considerable extent and gasoline stocks are being drawn upon to an accelerated degree. If these efforts are continued well into the fall, it is believed that present prices of crude and gasoline will be maintained.

Conditions in the producing branch of the industry continue to reflect a well-balanced program, with demand exceeding supply to some extent. This alone is conducive to continued market strength, but the crude market outlook is dependent to a large extent upon the ability of refiners to maintain a healthy market situation. If runs to stills are reduced somewhat more and gasoline stocks are brought down to a normal or sub-normal level, it is believed that the industry's price structure will be maintained at or near present levels throughout the balance of this year. However, if runs to still are not reduced to the extent indicated as necessary to offset the falling off in gasoline demand, it will be difficult to maintain present price levels. In this respect, the producer is in a somewhat precarious position, since a slump in refined oil prices will most certainly cause a cut in posted prices of crude. The present economic structure, however, does not indicate immediate market weakness, and it is probable that crude prices will be maintained at present levels well into the fall. Talk of an advance in the crude market is decidedly premature, in view of the fact that the season of peak gasoline demand is about over. Besides, the present value of products from a barrel of crude is only sufficient to justify payment of existing posted prices. Then, too, underselling in the crude market has again become more prevalent than should be necessary.

Fourteen Companies *for First Six Months Show* 15 Million Earnings

The 14 oil companies whose shares are listed on the New York stock exchange had net earnings of $15,895,564 for the first six months of 1932. In the corresponding period of 1932 these concerns reported total deficit of $31,149,126.

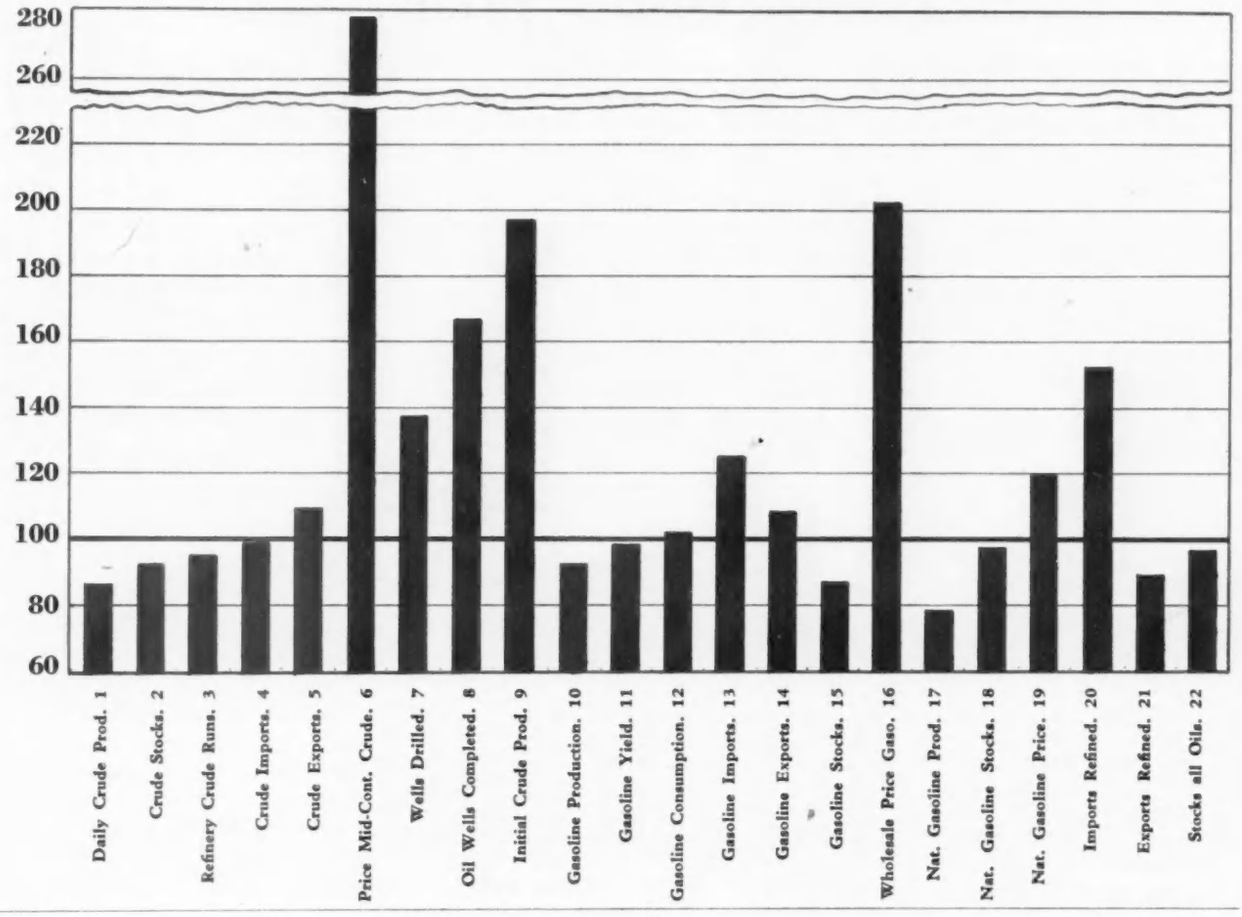
The compilation made by Carl H. Pforzheimer & Co. shows that $13,237,166 of the combined earnings for 1932 were made in the second quarter of the year.

Earnings by companies and for the periods under comparison were:

	1932			1931
	1st Quarter	2nd Quarter	1st 6 Months	1st 6 Months
Amerada Corporation	$225,383	$327,161	$552,545	$478,225
Atlantic Refining Co.	435,000	2,750,000	3,185,000	d4,013,000
Continental Oil	d1,872,848	1,616,346	d256,502	d6,528,841
Mid-Continent Petroleum	d1,035,738	303,844	d731,894	d2,901,821
Ohio Oil Company	1,656,106	2,442,092	4,098,198	*
Panhandle Petroleum & Refining	d148,175	d31,525	d179,700	d294,678
Shell Union Oil	d2,742,300	d193,126	d2,935,426	d20,959,506
Skelly Oil Company	d278,628	235,107	d43,521	d2,702,883
Standard of California	2,930,241	3,986,302	6,916,544	5,643,968
Sun Oil Company	*	*	2,035,918	1,049,403
Texas Pacific Coal and Oil	323,295	92,988	416,283	d690,237
Tide Water Associated Oil Company	527,603	1,572,097	2,099,700	d1,077,464
Union Oil of California	950,000	550,000	1,500,000	1,900,000
Warner-Quinlan Company	d347,459	d414,121	d761,580	d95,842
Total	$622,480	$13,237,166	$15,895,564	d$31,149,126

* Not available. d Deficit.

Salient Oil Industry Factors for June, 1932, Expressed in Per Cent of June, 1931. Heavy Line (100) Represents June, 1931.



Oil Industry Barometer—June, 1932

Index of Salient Factors—Current and Cumulative

	Factors—	June			6 Months Ending June 30		
		1931	1932	Index (1)	1931	1932	Index (1)
1	Daily Average Crude Production (Thous. Bbls.)	2,500	2,161	86.5	2,323	2,185	94.2
2	Total Crude Stocks (Thous. Bbls.)	397,304	363,783	91.8	397,304	363,783	91.8
3	Refinery Crude Runs (Thous. Bbls.)	76,237	72,327	94.9	438,541	419,158	95.7
4	Crude Imports (Thous. Bbls.)	3,978	7,869	98.8	25,509	32,244	126.0
5	Crude Exports (Thous. Bbls.)	2,544	2,791	109.0	11,853	14,179	120.2
6	Posted Price 36 Gravity Mid-Cont. Crude (Per Bbl.) (2)	.33	.92	278.0	.67	.84	125.1
7	Wells Drilled	987	1,355	137.4	5,777	6,478	112.0
8	Oil Wells Completed	593	1,007	167.3	2,890	4,542	157.0
9	Initial Crude Production (Thous. Bbls.)	3,000	5,925	196.8	9,893	24,707	250.0
10	Gasoline Production (Thous. Bbls.)	37,024	33,996	92.0	211,869	200,255	94.6
11	Gasoline Yield—Average Per Cent of Crude (4)	44.3	43.4	97.8	43.7	43.9	100.6
12	Domestic Gasoline Consumption (Thous. Bbls.)	38,375	38,766	101.0	191,908	181,785	94.7
13	Gasoline Imports (Thous. Bbls.)	964	1,209	125.1	7,033	7,634	108.1
14	Gasoline Exports (Thous. Bbls.)	3,265	3,521	107.9	23,783	21,251	89.1
15	Gasoline Stocks at Refineries (Thous. Bbls.)	44,296	38,526	87.0	44,296	38,526	87.0
16	Refinery Price U. S. Motor Gaso.—Group 3 (Cents) (3)	2¼	5	222.0	3⅝	4⅛	113.9
17	Natural Gasoline Production (Thous. Bbls.)	3,583	2,812	78.4	23,369	18,681	80.0
18	Natural Gasoline Stocks (Thous. Bbls.)	4,020	3,892	96.7	4,020	3,892	96.7
19	Price Grade "A" Natural Gasoline, Group 3 (Cents) (3)	1⅞	2¼	120.0	2⅞	2	69.9
20	Imports of All Refined Oils (Thous. Bbls.)	2,396	3,605	151.7	19,284	22,276	115.0
21	Exports of All Refined Oils (Thous. Bbls.)	7,753	6,887	88.8	50,970	43,523	85.5
22	Total Stocks of All Oils (Thous. Bbls.)	652,897	626,487	96.0	652,897	626,487	96.0
	Weighted Index of Supply	.....	.....	100.4	.....	.....	98.9
	Weighted Index of Demand	.....	.....	100.3	.....	.....	97.0
	Weighted Index of Prices	.....	.....	206.3	.....	.....	102.9

(1)—Last Year—100.
(2)—Weighted Average. (3)—Monthly Average.
(4)—Straight run and cracked gasoline only.

Unitization Proponents Fail *to Accomplish Plan for* Hobbs Pool

FORT WORTH, Texas.—Proposed unitization of lease and royalty interests in the Hobbs field, largest and most important oil area in New Mexico, failed at a two-day session held here beginning August 15 for lack of unanimous agreement on a plan of pooling the various properties. The operators endorsed a resolution favoring unitization, and appointed new committees to continue work on correcting objectional features complained of by a minority group of lease owners. Provisions were also made for the engagement of a well known engineer and appraisal expert on full time basis to work under the guidance of the general committee of operators. This appointment will be announced later.

A movement to combine all properties in the Hobbs field and handle same as a unit with a single organization to be under the direction of an operators' committee has been under consideration nearly a year. Meetings on the plan began last December, and have been held at intervals since. The principal object in unitizing the field is to stave off the encroachment of bottom hole sulphur water on the west flank of the structure by curbing production in the low pressure areas, and to restrict output of wells situated on top of the structure making an excessive gas-oil ratio. Conserving of this gas is of vital importance to prolonging the flowing life of the field, which has less than a half-dozen pumpers out of 161 completions in the 4200-foot lime horizon.

E. G. Allen, Shell Petroleum Corporation, Dallas, is chairman of the general operators' committee, and L. E. Barrows, The Texas Company, Fort Worth, is chairman of the committee on unitization. E. H. Wells, State geologist for New Mexico, attended the Fort Worth sessions, owing to the fact that a number of State institutions share in royalties from a number of tracts in the field.

A contact committee consisting of Barrows; Ralph B. Pringle, general manager Tidal Oil Company, Tulsa; and Ed. A. Landreth, president, Landreth Production Corporation, Fort Worth, was appointed to confer with operators that have raised objections to certain provisions of the unit plan under consideration with a view of reaching a compromise.

A sub-committee of engineers was appointed to review the data on edge leases and make new recommendations on apportionment of percentage of participation in the unit based on reservoir pressure readings, structural position, etc. This committee consists of Harvy Hardison, The California Company; W. E. Hubbard, Humble Oil & Refining Company, and W. V. Vietti, The Texas Company.

Refiners Only Able to Reduce Gasoline Stocks *Two Days*

REFINERS were able to reduce the gasoline in storage but two days of supply for the first six months of 1932 against the corresponding period of 1931, according to gasoline statistics, compiled by the Western Petroleum Refiners Association, Tulsa. At the end of June, 1931, there were 35 days of gasoline supply on hand. June 30, 1932, this stood at 33 days of supply.

For the period all refining districts cut gasoline production down by 5.8 per cent. But shipments from refineries declined 5.1 per cent, while stocks declined 6.5 per cent. Several districts showed increases in production but the amount of increase did not match the decrease in the few districts where material reduction was affected. The East Coast, the Appalachian, North Louisiana, Louisiana Gulf Coast, each revealed an increase in production for the month. Decreases, however, were recorded in the Indiana-Illinois, Oklahoma-Kansas, inland Texas, Texas Gulf Coast, the Rocky Mountain and California districts.

The complete pictures in figures for the period is shown in the following tabulation:

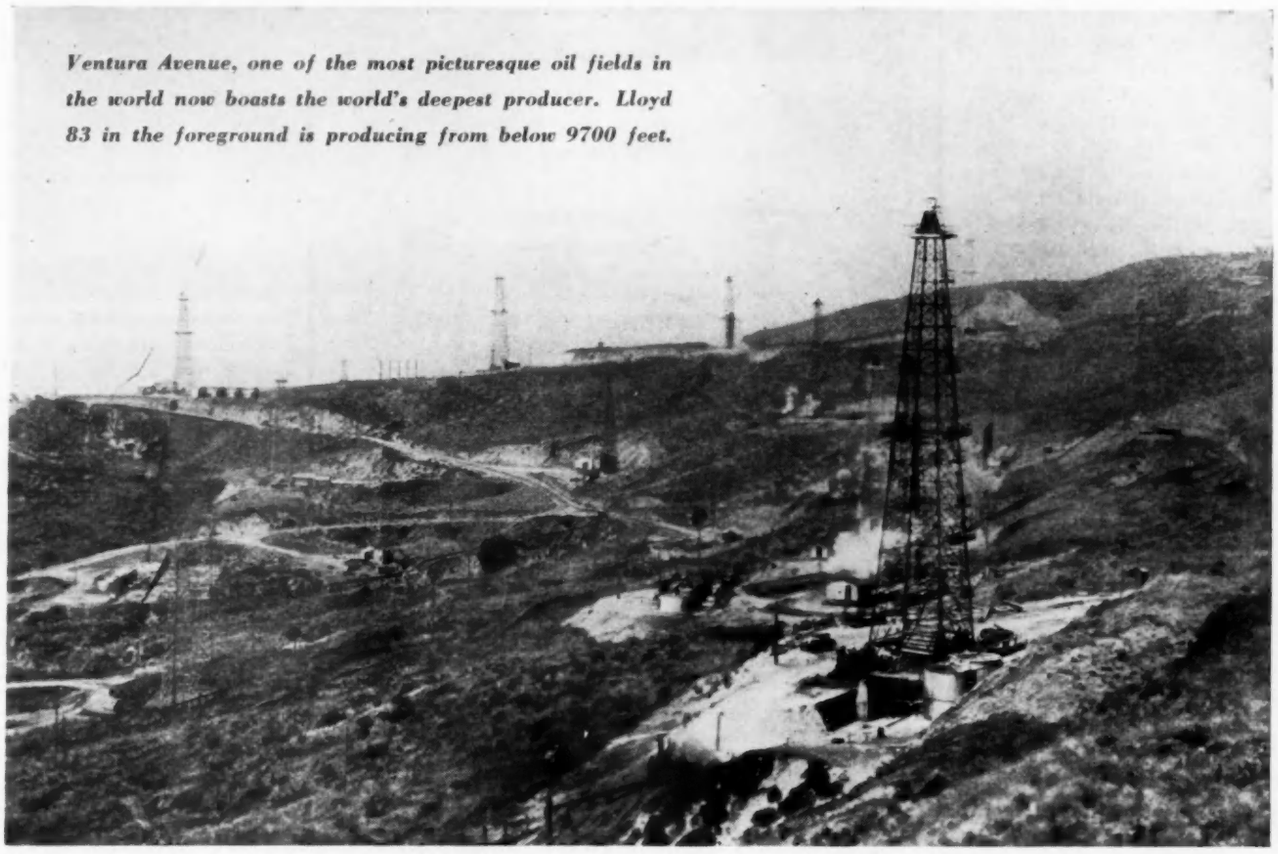
Gasoline Statistics—First Six Months 1931 and 1932

(Thousand Barrels)

Total United States Summary	Stocks at Refineries (a) Jan. 1	Stocks at Refineries (a) June 30	Production at Refineries	Shipments from Refineries (b)	Stocks at Terminals (c) Jan. 1	Stocks at Terminals (c) June 30	Shipments to the Trade (d)	Imports (e)	Exports (f)	Domestic Demand to the Trade
Six months 1931	38,488	41,198	208,861	206,151	12,472	14,139	205,056	6,930	22,449	189,537
Six months 1932	37,445	38,526	196,803	195,722	13,875	16,647	192,072	7,634	20,436	179,270
Per cent change	2.7 dec.	6.5 dec.	5.8 dec.	5.1 dec.	11.2 inc.	17.7 inc.	6.3 dec.	10.2 inc.	9.0 dec.	5.4 dec.

	Production at Refineries Six Months 1931	Production at Refineries Six Months 1932	Per Cent Change	Shipments from Refineries (b) Six Months 1931	Shipments from Refineries (b) Six Months 1932	Per Cent Change	Stocks at Refineries (a) June 30 1931	Stocks at Refineries (a) June 30 1932	Per Cent Change	Days Supply of Gasoline Held at Refineries (g) June 30 1931	Days Supply of Gasoline Held at Refineries (g) June 30 1932
East Coast	33,057	34,334	3.9 inc.	31,830	32,663	2.6 inc.	7,000	6,260	10.6 dec.	39	32
Appalachian	8,266	8,750	5.9 inc.	7,827	8,646	10.5 inc.	1,634	1,530	6.4 dec.	38	31
Ind.-Ill.-Etc.	31,672	28,863	8.9 dec.	29,350	27,539	6.2 dec.	5,212	4,979	4.5 dec.	30	28
Okla.-Kans.-Mo.	29,780	25,716	13.6 dec.	29,669	26,206	11.7 dec.	3,481	2,916	16.2 dec.	20	19
Inland Texas	15,222	13,514	11.2 dec.	15,199	13,657	10.1 dec.	1,835	1,915	4.4 inc.	22	23
North La.-Ark.	4,127	4,172	1.1 inc.	4,221	4,153	1.6 dec.	131	168	28.2 inc.	6	7
Texas Coast	36,995	34,433	6.9 dec.	36,300	35,800	1.4 dec.	5,612	4,411	21.4 dec.	28	22
La. Coast	8,320	9,025	8.5 inc.	8,333	8,727	4.7 inc.	1,400	1,551	10.8 inc.	27	31
Rocky Mt.	5,986	4,144	30.8 dec.	5,792	3,858	33.4 dec.	1,946	1,818	6.6 dec.	55	68
California	35,436	33,852	4.5 dec.	37,630	34,473	8.4 dec.	12,947	12,978	0.2 inc.	59	69
United States	208,861	196,803	5.8 dec.	206,151	195,722	5.1 dec.	41,198	38,526	6.5 dec.	35	33

Note: (a) "Stocks at Refineries" are those held by refining companies at or near refineries, except California and total United States also include stocks held at terminals inside U. S. Pacific coast territory.
(b) "Shipments from Refineries" are movements to meet demand, whether for consumption or bulk terminal storage.
(c) "Stocks at Terminals" exclude California terminal stocks which are included with "Stocks at Refineries." Data for 1931 furnished by A.P.I.
(d) "Shipments to the Trade" indicate quantities leaving both refineries and terminals for consumption.
(e) "Imports" do not include imports into U. S. non-contiguous territories.
(f) "Exports" do not include re-exports from U. S. non-contiguous territories: any unblended natural gasoline leaving customs districts east of California is included.
(g) "Days Supply" is measured by daily average shipments from refineries for the 12 months ended with June.
Compiled by Western Petroleum Refiners Association—August 15, 1932.



Ventura Avenue, one of the most picturesque oil fields in the world now boasts the world's deepest producer. Lloyd 83 in the foreground is producing from below 9700 feet.

Ventura Well Below 9700 Feet *Presents* No Real Problem

World's deepest producer drilled "just like any shallow well"—temperatures interesting

BRAD MILLS
Staff Representative

THE ease, rather than the difficulty, with which Associated Oil Company's Lloyd 83, record producer in the Ventura Avenue field, was drilled stands out to damped the anticipation of most engineers that a depth of 9700 feet could have been reached only with a great effort. A high premium should be placed on the accomplishment, however, since making a comparatively easy job of a new world record deserves more credit than a similar objective achieved after a long series of mechanical troubles.

A careful search of well records shows that Lloyd 83 was drilled almost exactly as a much shallower well would have been drilled. It was impossible to log the care and caution exercised, but between the lines may be observed a program which helped to set a new production record for all fields.

The well was first completed July 12 and produced 5050 barrels of 27.2 gravity crude and above 5,000,000 cubic feet of gas. A little more than a year was required to complete the well. The depth was established at 9710 feet, although preliminary measurements had placed the total depth at exactly 9700 feet. The cut was five per cent water and a trace of mud through two 96/64-inch beans. The pressures were disappointing during the original production test, standing at about 600 pounds on the casing and zero on the tubing. The high gas pressure developed during drilling indicated both a very high casing pressure and a large volume of gas.

The action of the well during the first production test pointed to a clogged condition of the producing formation. Weight material had been used in large quantities to control the gas, while the small clearance between the liner and the wall of the hole invited trapping under heavy pump pressures.

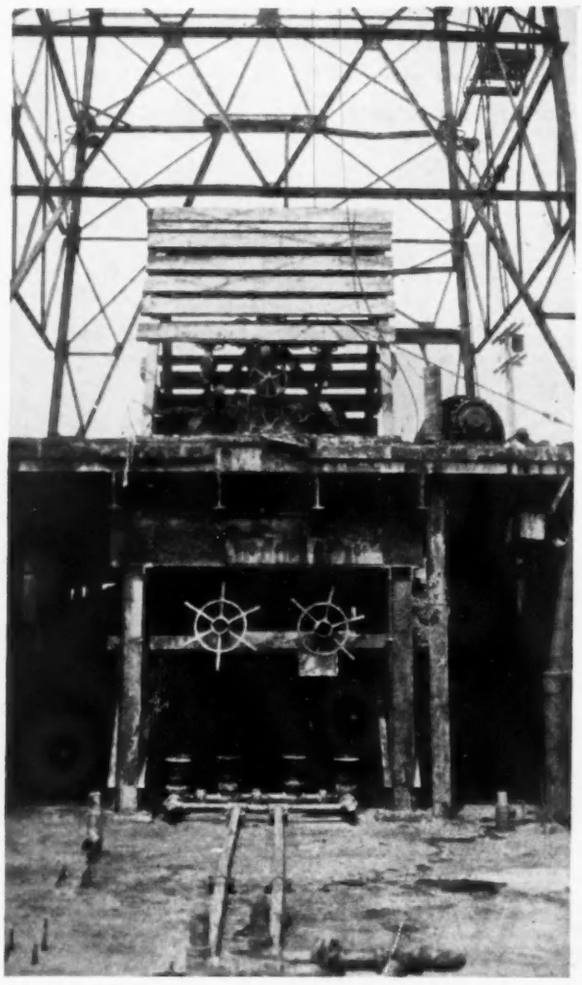
The well was killed after a short test, and the hole washed to increase production. The net result of the operation was not a much larger flow of oil, but the use of smaller beans and holding of a pressure against the well did improve the quality of the oil and reduce the cut to an absolute minimum. The improved condition of the lower portion of the hole allowed the use of beans which established a satisfactory flow of better oil. Upon recompletion,

the well flowed for a short time at 6000-barrel rate, but the highest amount produced for a 24-hour period was little more than 5000 barrels. The smaller beans and holding of a back pressure apparently forced more gas into the oil and helped to lower the cut to one-tenth of one per cent. No effort was made during the original test to produce the well through smaller beans.

The 4¾-inch liner was landed on bottom and included 1090 feet of 500 mesh perforated casing. The 4¾-inch tubing was run to 6375 feet. The well was not tested from a record formation thickness by any means.

Casing Expensive Item

Casing was a very expensive item in the drilling of Lloyd 83, including 197 feet of 26-inch, 1195 feet of 20-inch, 5344 feet of 13⅜-inch, 8120 feet of 9-inch, 8579 feet of 7-inch, besides the 4¾-inch tubing and liner. The unusually long strings of 9-inch and 7-inch added heavily to the cost of the well, but they undoubtedly proved a profitable investment toward the ultimate completion just above 10,000 feet. The cost of the casing was far more than the total cost of the shallow wells of 15 years ago.



Mud pumps were placed in the cellar, thus overcoming the suction problem. Circulating pressures ran as high as 1500 pounds.

Only a limited amount of special equipment was used in drilling the well, but in the arrangement of much of the standard equipment may be seen an efficiency which was unknown 10 years ago.

A comparison of a 1932 automobile with the 1931 model will not show a marked contrast, but a comparison of a 1932 model with a 1912 model shows a radical change. It is not that the same general principles are not incorporated in the old and new models, but that the refinements are more pronounced that make the contrast. The same comparisons apply to drilling practices and equipment at Lloyd 83 and the wells of last year and of 1912. The present drilling to depths of 10,000 feet simply displays the evolution of an art which was not so good a few years ago. By taking up the slack here and there, the efficiency of present drilling has been raised by almost 100 per cent.

The company had no intention of drilling Lloyd 83 to 9710 feet when the well was started. Depth came easily, and after a new field record was established, it was not difficult to exceed the former production depth by a wide margin. Coring was stopped in oil sand, and more hole could have been made with ease.

The arrangement of the mud pumps in the cellar, use of larger crown blocks, better drill pipe and casing and incorporation of latest drilling practices helped to establish the new depth record in Lloyd 83. Company engineers did not strive to break the record through the use of new equipment, but rather through making the best of the standard of today.

Mud Pumps in Cellar

By placing the mud pumps in the cellar, the suction problem was eliminated. The drop of eight or nine feet created a head sufficient to insure a steady circulation. Fifteen years ago it was not uncommon to see the pumps higher than the mud box. Later the pumps were countersunk in the derrick floor to place the suction on a level with the mud fluid. This position was so much better than the former method that the idea of placing the pumps several feet below the derrick floor was conceived.

Circulating pressures ran as high as 1500 pounds, but the average was lower. The three 14x7¼x14 mud pumps were capable of working under pressures considerably above the highest recorded through triple componding. A maximum pressure of 3000 pounds could have been exerted by this scheme through compounding the three pumps.

The principal surface equipment included a 136-foot A.P.I. derrick with 26-foot base; draw works with 7-inch line shaft, 7½-inch drum shaft, 25-inch by 34-inch grooved spool drum, and 46-inch by 9½-inch brake drum with compounded brake; 12x12 twin cylinder enclosed type steam engine; 10x10 twin cylinder steam engine as auxiliary; three 14x7¼x14 mud pumps; heavy chain drive rotary table; 66-inch roller bearing crown block with 36-inch sheaves; double deck roller bearing crown block; and 1-inch casing line.

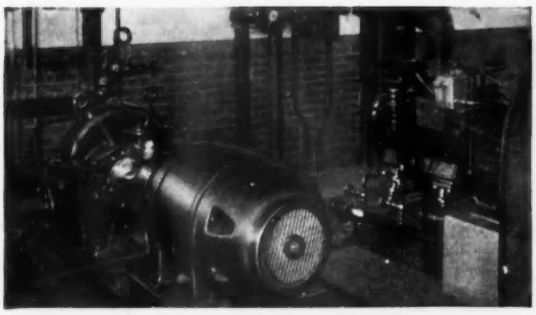
Most of the drilling was done with fish tail bits, although other types were used satisfactorily. Coring was practically continuous below 9100 feet, and never was the value of good cores demonstrated more clearly.

A very heavy Christmas tree was installed, but such precaution proved an optimistic gesture, as the casing pressure was not much above 600 pounds. The Christmas tree was tested to 6000 pounds and had a working pressure of 3000 pounds.

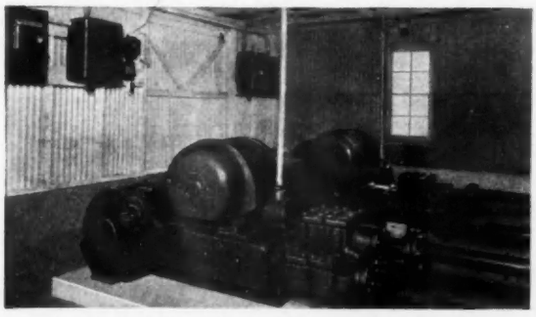
The gas pressure increased gradually below the 7-inch shutoff at 8579 feet, but the high formation pressure did not necessarily indicate a large volume. Running in and out of the hole required most of the time, as it was difficult to keep the well from coming in even with the hole full of mud and weight material.

Temperature, always an interesting feature in any deep well, was studied but it was difficult to get an accurate reading at any point below 9000 feet. Different methods

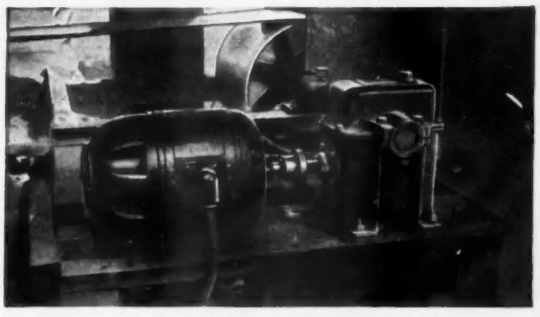
(*Continued on page 36*)



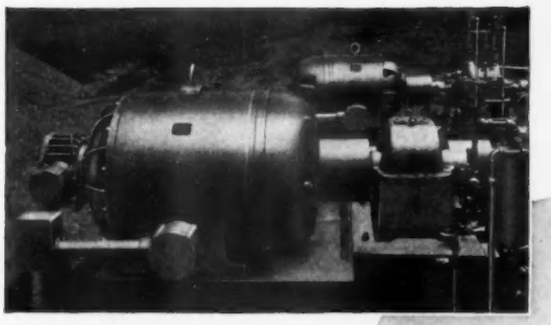
G-E explosion-proof motor driving centrifugal gasoline pump



Two G-E splash-proof motors driving gathering pumps



G-E totally enclosed, fan-cooled, squirrel-cage motor driving conveyor under fuller's earth burner

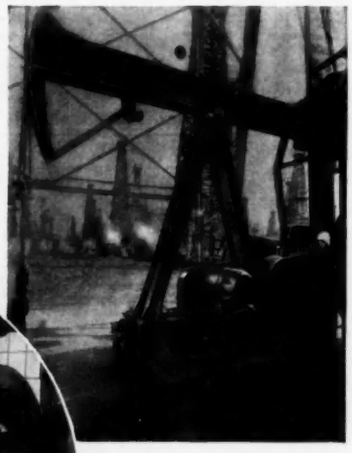


Foreground, G-E 100-hp. synchronous motor of Class I, Group D, construction driving gasoline and reflux pumps through G-E speed-increasing gear; background, standby unit with G-E 75-hp. totally enclosed, fan-cooled, explosion-proof, squirrel-cage motor. Outdoor installation.

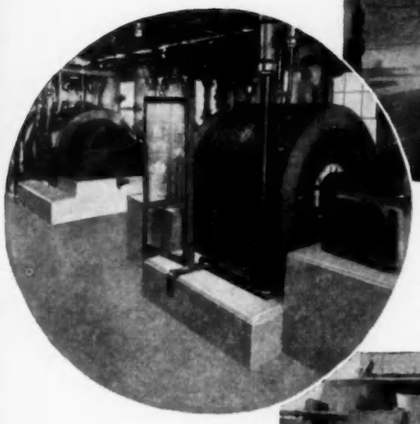
"TOUGH SPOTS!"

INDOORS and out, there are always tough spots — places where operating conditions are particularly adverse—where motors must withstand more than the usual amount of punishment.

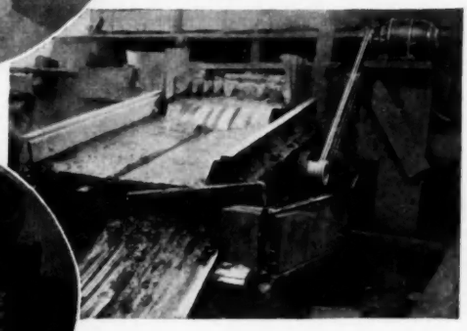
General Electric builds motors — induction and synchronous —designed to minimize maintenance difficulties usually experienced in operating motors under unfavorable conditions. How about the tough spots you must motorize? Remember: General Electric can build the RIGHT MOTOR and the RIGHT CONTROL for every application. For details, address your nearest G-E office, or General Electric Company, Industrial Department, Schenectady, New York.



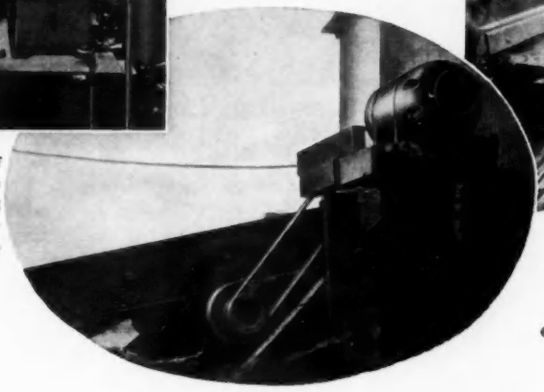
Outdoor installation, G-E explosion-proof motor driving oil-well pumping unit



Two G-E totally enclosed, fan-cooled, inert-gas-filled synchronous motors in casing-head-gas gathering plant



G-E single-phase explosion-proof motor driving mud screen, outdoors



G-E totally enclosed, fan-cooled, squirrel-cage motor driving mud screen, outdoors

200-614

GENERAL ELECTRIC

South Texas' Newest Field *Placed Under Commission* Proration Orders

Austin, Texas.—Through an order issued here Tuesday, the Tuleta field in Bee County was brought under the control of the proration orders of the Texas Railroad Commission. Allowables are on the well and acreage basis, with a top allowable of 260 barrels per day allotted to wells draining a 20-acre unity.

As in other fields recently prorated, each well is granted a 40-barrel allowable plus a further allotment for the acreage drained. Wells on units from one to four acres, inclusive, have a nine-barrel per acre allowance; wells on units of five to nine acres, inclusive, are allotted 10 barrels per acre; wells on units of 10 to 20 acres, inclusive, are permitted to produce 11 barrels per acre above the 40-barrel flat allowable. This allotment permits the same production as in the Government Wells field in Duval County, as no well may have a larger drainage area than 20 acres.

Leases in the field have previously been divided into 10-acre units, which makes the new spacing rule, 330 feet from lease lines and 660 feet from offsets, easy to enforce. This permits one well to each 10-acre unit.

A gas-oil ratio of 2000/1 is called for, and wells must be equipped with 2½-inch tubing, or smaller, set no more than two feet above the bottom of the hole. Eight hundred feet of surface casing is required to prevent danger of caving should any well get out of control.

The order followed a hearing held in Austin on Monday, August 15, at which representatives of the Shell, Atlantic and some independent operators were present.

Wm. F. Knode, petroleum engineer for the railroad commission, stated that there is only one producing well in the field at the present time, the Nichols-Harris No. 1, which is producing about 143 barrels per day from 4111 feet.

Knode said that there was about four feet of clear white pay sand, probably of the Jackson, from which this well is producing. There is a 1700-pound closed in pressure, and 680 pounds pressure on the casing and about 690 pounds on the tubing. The well is producing about 6500 MCF gas, and has an estimated gas-oil ratio of 25,000/1.

The oil is of 50 gravity, and is slightly amber in color, although it was white at the time the well came in. Knode believes that the change in color is due to reduction of bottom hole pressure since the well came in.

Tubing is set at the top of the liner 80 feet above the producing horizon, and it is believed that the gas-oil ratio will be materially reduced when the tubing is set to conform to the new order.

Knode stated that the well was exceptionally well completed for a wildcat, the oil string being set with 250 sacks of cement, although the surface casing was not set in cement.

He stated that the spacing rule as issued in the order would prevent low pressure areas around corners, as it would reduce the concentration of wells by 75 per cent in such areas.

Next East Texas Order Expected to Be 41 Barrels

Austin, Texas.—An order reducing the allowable per well in East Texas to 43 barrels per day, effective August 16, has been issued by the Texas Railroad Commission. The order in effect for the past two weeks permitted 44 barrels.

It was estimated by Luther Swift, commission representative in the East Texas field, that there would be 7650 wells capable of producing this amount on September 1, at which time the present order expires.

A hearing will be held in Austin on August 29, at which time evidence will be heard on which the new order, effective September 1, will be based.

Reduction to 41 barrels may be expected on that date, and a further reduction to 40 barrels will probably be made on September 15. It has been learned that the commission plans to hold the order at 40 barrels, as reductions below this figure would conflict with the provisions of the marginal well law.

Tapping Gasoline Lines Oklahoma Pastime

Tulsa.—A practice which has seemed to gain attractiveness during the present depression and high taxation is that of tapping gasoline lines. The most recent report of this type of theft came from Great Lakes Pipe Line Company who discovered that its line between Avant and Skiatook had been tapped by using a saddle and one-inch line. The theft was discovered by careful check of meters at substations which revealed a loss which could not be accounted for other than by an illegal connection. This branch of the Great Lakes System is a six-inch line which connects plants at Tulsa, Okmulgee, and Muskogee with the main line at Barnsdall. The company was not successful in apprehending the thieves.

Several companies operating gasoline lines through the Mid-Continent area are sustaining large losses through tapping of lines and more than 20 prosecutions have been brought about through the efforts of one company alone. One operator of a relatively short line recently said, "There is hardly a mile of our line which does not have a repair collar due to having been tapped. In a few instances we have caught employes of our own company stealing gasoline."

Oil Resource of Kensington Quadrangle

The coal, oil, and gas resources of the New Kensington quadrangle, which comprises portions of Allegheny, Butler, and Westmoreland Counties, in western Pennsylvania, immediately north of Pittsburgh, are described in a report recently issued by the United States Geological Survey, Department of the Interior, as Bulletin 829. This report, which was written by G. B. Richardson, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, for 40 cents.

The principal coal bed, the Upper Freeport, has a thickness of more than seven feet in a considerable area and since 1900 has been extensively mined. Reserves of this bed in the New Kensington quadrangle are estimated at 800,000,000 tons. This quadrangle lies in the east-central part of the Appalachian oil and gas region and was extensively drilled between 1875 and 1900 when the more productive areas were discovered and the maximum output obtained. For many years the average daily production of oil per well has been only a fraction of a barrel, but from time to time small productive areas that were missed in earlier drilling are discovered. Oil and gas occur in a group of lenticular beds of sand of Mississippian and Upper Devonian age, lying between 1200 and 2600 feet below the Upper Freeport coal. Production is characteristically "spotted," and good wells adjacent to poor wells or dry holes are common. The deeper lying sands that are productive in other areas constitute a potential reserve.

Kansas Plant to Be Rebuilt

Consolidated Oil Corporation has announced the start of rehabilitation work on the old Sinclair Refining Company's Argentine plant at Kansas City, Kansas. The company plans on resuming operations about September 15 and will transfer 35 employees from the Coffeyville, Kansas plant.

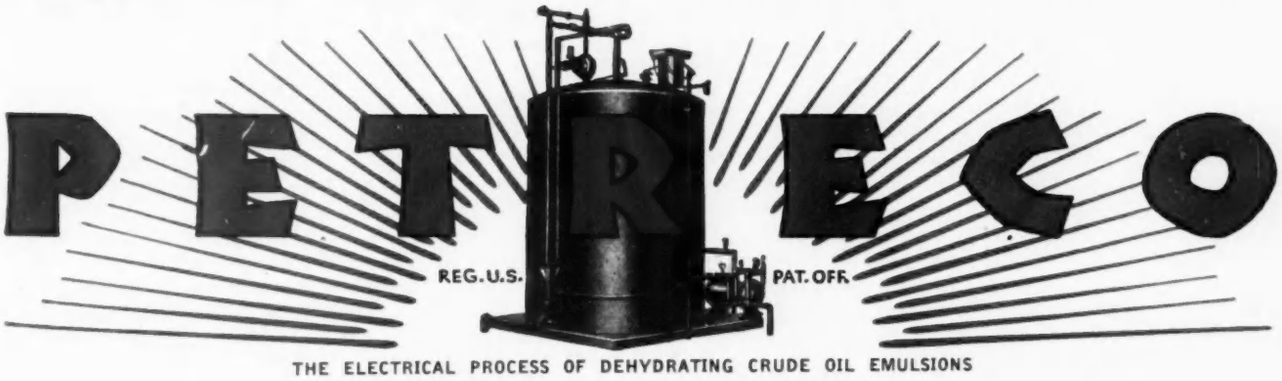
There can be no substitute for positive facts when maximum results are essential.

To the naked eye a drop of "cut" oil is merely a particle of colored fluid. In the Petreco laboratory, however, the Official Oil Doctor and his staff break it up into its component parts*; analyzing each, and positively determining the most effective method of treatment.

Such expert knowledge assures the ultimate results and minimum costs in treating, and is available to any oil company producing "cut" oil.

*The sample shown is sludge; predominating small particle size .00056-inch; containing colloidal material, a small amount of sediment and a very tenacious emulsifying film.

PETROLEUM RECTIFYING CO.
OF CALIFORNIA
530 W. SIXTH ST. LOS ANGELES, CALIF.
Branch: 412 Petroleum Bldg., Houston, Texas



THE ELECTRICAL PROCESS OF DEHYDRATING CRUDE OIL EMULSIONS
(Fully Covered by Process and Apparatus Patents)

MEN IN THE INDUSTRY'S NEWS

T. O. GRISELL, of New York, has been elected Secretary of the Pennsylvania Grade Crude Oil Association, succeeding Rodney J. Alexander, resigned. Mr. Grisell was for six years with the George Batten Company and one year with Batten, Barton, Durstine & Osborne as Director of the Marketing Department. Three years ago, he left advertising work to take up the presidency of the Neidich Viscose Company, from which position he recently resigned. In the field of distribution, he is known for his work on trading areas in the United States and his book "Budgetary Control of Distribution," published by Harper. All of his early life was spent in the production end of the oil business.

JUDGE FRED W. FREEMAN, vice president of the Texas Production Company, and widely known Denver business man, died at Denver Tuesday of pneumonia.

Judge Freeman was associated with the Texas corporation from 1902 until 1920 when he retired, becoming vice president of the subsidiary company.

J. H "TARZ" MARSH, field scout for Carter Oil Company, has been transferred from Cushing to Wichita, Kansas, and is to be succeeded by "Doc" McGee who is transferred from the Oklahoma City district.

M. L. NORRIS, formerly with the Independent Oil & Gas Company, is now with the Butler Manufacturing Company. Mr. Norris is making his headquarters in Denver.

ARTHUR D. SUMMERS, scout and land man in Carter Oil Company's Kansas district, died at Wichita on August 3 after an illness of three days. Mr. Summers, familiarly known to many Mid-Continent oil men as "Art", was 48 years of age at the time of his death and had spent 11 years in the service of Carter Oil Company. He had been stationed at Wichita for the past three years, having been transferred there from the Cushing district.

KING H. HOUSTON and Robert McDonald of Negritos, Peru, are planning to return shortly to Peru after spending three months visiting friends in Ontario. They are in the employ of the International Petroleum Company.

EMERSON G. SMITH, director of public relations for Continental Oil Company at Ponca City, is recovering fram a serious attack of pneumonia. For several days attending physicians held little hope for his recovery but he is now reported safely beyond the crisis.

A. HENDRICKSON, chief chemist for Continental Oil Company, is visiting Yellowstone National Park after an inspection of the company's refinery at Glenrock, Wyoming.

B. R. EMRICK, technical advisor for the Burmah Oil Company, with headquarters at Khodaung, Burmah, is spending his vacation in California. He will later make an extensive study of American operating conditions in both Mid-Continent and California fields. He is particularly interested in drilling under pressure.

MARION E. BROCK
Heads Group on Waste Production Disposal . . .

MARION E. BROCK, assistant to the vice president of the Gulf Production Company, Houston, has been appointed head of the American Petroleum Institute's Committee on Disposal of Waste Production. He succeeds V. L. Martin, who recently resigned when he went into the consulting field. Mr. Martin headed the committee since its organization in 1930.

HARRY H. JOHNSON, who has been on military duty in the East Texas Oil field in the capacity of a major almost continually since last August 17, has been relieved to resume his scouting activities for the Gulf Production Company in West Texas with headquarters at Midland. Major Johnson's first-hand knowledge of the producing branch of the oil business made his services very much in demand while with the military in the East Texas field, and he was responsible for the detection of a number of oil thefts and proration violations.

P. W. LAMBRIGHT, assistant superintendent of production for Standard Oil Company of New Jersey interests in Argentine, is being transferred to Sumatra.

DON WEAVER, formerly petroleum engineer for The Texas Company at Santa Fe Springs, recently resigned to become superintendent of production for Wilshire Oil Company at Santa Fe Springs.

D. C. WALKER, assistant superintendent for Burmah Oil Company at Yenang-Young, Burma, is making a business and vacation tour of California fields.

E. H. SALRIN, vice president of Tidal Oil Company, is visiting in California.

FREDERICK W. BAHLS, formerly legal advisor to the Oil department in the State Corporation Commission office, State of California, has opened offices for general practice in Los Angeles.

G. M. LANTZ, production superintendent of the Pure Oil Company at Mount Pleasant, Michigan, has been transferred to El Dorado, Arkansas, where he will have charge of the Pure's properties.

D. B. COLLINS, superintendent of the Shell Oil Company's operations in the Coalinga field for the past 2½ years, has sailed with his family for Holland to enter the foreign service of the Royal Dutch Shell. John Landers succeeds Mr. Collins at Coalinga.

MARKETS ~ STATISTICS

Runs and Gasoline Stocks Up Again to Weaken Price Structure. Dumping of Big Supply Has Bad Influence on Buying. Production Down.

Still Runs and Stored Gasoline Increase

CONDITIONS were unfavorable for the week ending August 13 with respect to adjustment of refinery operations in the United States to gasoline demand, the runs of crude oil to stills showing an increase whereas if they had been kept at the level of the previous week there would still have been an addition to the stocks of stored gasoline.

Through the above combination of circumstances stocks of gasoline at United States refineries increased by 334,000 barrels during the week ending August 13, reaching 37,273,000 barrels.

Daily runs of crude oil to stills for the week ended August 13 averaged 2,163,300 barrels, an increase of 35,700 barrels over the daily average of the previous week, or a total increase of 249,900 barrels in the week's runs over those of the week before.

The above figures on runs to stills and gasoline in storage at refineries are estimates of the American Petroleum Institute and represent a summation of reports on operations of refineries controlling 95.1 per cent of the nation's refining capacity.

Imports of crude and refined oils at principal United States ports for the week ended August 13 totaled 841,000 barrels, a daily average of 120,143 barrels, compared with a daily avearge of 81,857 barrels for the previous week and 88,500 barrels daily for the four weeks ended August 13.

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports likewise showed an increase for the week ending August 13, totaling 425,000 barrels or averaging 60,714 barrels daily as compared with a daily average of 10,000 barrels for the week ending August 6 and 24,464 barrels daily for the four weeks ended August 13.

Crude Output Close To Two Million Mark

CRUDE oil production in the United States took an encouraging downward trend during the week ending August 20, dropping to the lowest level recorded since the first week of July. During no week in 1932 has production been held down to any materially lower level; and in only two other weeks of the year has it been held so low, as may be seen by reference to the production chart on the next page, two similar low marks having been set in the mentioned first week of July and in the latter part of February.

The contracted output for the week ended August 20 represented a daily average of 2,111,580 barrels, according to estimates compiled by THE OIL WEEKLY, that rate of production being 37,685 barrels under the daily average maintained during the previous week.

While Oklahoma took the role of the nation's production barometer which it has been assuming regularly during recent months to figure most conspicuously in the decline of the week of August 20, a few other areas also contributed materially to the decrease, notably Texas, under the influence of a 10,000-barrel drop in the East Texas field, the decline in that flush field being partially offset by an increase on the Gulf Coast, but resulting nevertheless in the state's average daily output dropping by 6000 barrels to 860,375 barrels.

The Oklahoma contribution to the nation's decline was a little over 25,000 barrels, the new daily average of the state being 391,165 barrels. Oklahoma City was as usual the scene of the most important fluctuation, producing 66,220 barrels daily on the average during the week, or 37,000 barrels less per day than in the previous week. The Seminole district offset that decline to the extent of an 11,000-barrel increase in daily output, while all other fields in the state considered in the aggregate showed practically no change in production.

California registered an increase of 2500 barrels for the week by averaging 475,000 barrels production daily. Louisiana, Arkansas and Kansas experienced only minor fluctuations.

THE OIL WEEKLY

(Estimated Daily Average Production in Barrels)

District—	For Week Ending Aug. 20	Aug. 13
TEXAS—		
Texas Panhandle	55,450	53,550
North and West Central Texas	74,625	74,557
West Texas	171,500	171,100
East Central Texas	56,200	58,835
East Texas Field	321,200	331,300
South Texas	56,200	56,215
Total Texas outside of Gulf Coast	735,175	745,575
Texas Gulf Coast	125,200	121,340
Total Texas	860,375	866,915
OKLAHOMA—		
Oklahoma City	66,220	103,120
Seminole	138,400	127,150
Other Oklahoma	186,545	186,230
Total Oklahoma	391,165	416,500
KANSAS—		
Ritz-Decker	11,580	12,050
Voshell	6,620	6,020
Other Kansas	75,350	74,580
Total Kansas	93,550	92,650
LOUISIANA—		
North Louisiana	29,000	27,490
Louisiana Gulf Coast	31,500	31,760
Total Louisiana	60,500	59,250
Arkansas	34,000	32,640
CALIFORNIA—		
Long Beach	71,000	68,400
Santa Fe Springs	58,000	57,600
Midway-Sunset	50,000	50,500
Kettleman Hills	61,000	60 300
Other California	235,000	235,700
Total California	475,000	472,500
MOUNTAIN STATES—		
Wyoming	31,450	38,750
Colorado	2,650	7,360
Montana	7,500	2,900
New Mexico	31,750	34,800
Total Rocky Mountain States	73,350	83,810
Eastern States*	123,650	125,000
Total United States	2,111,580	2,149,265

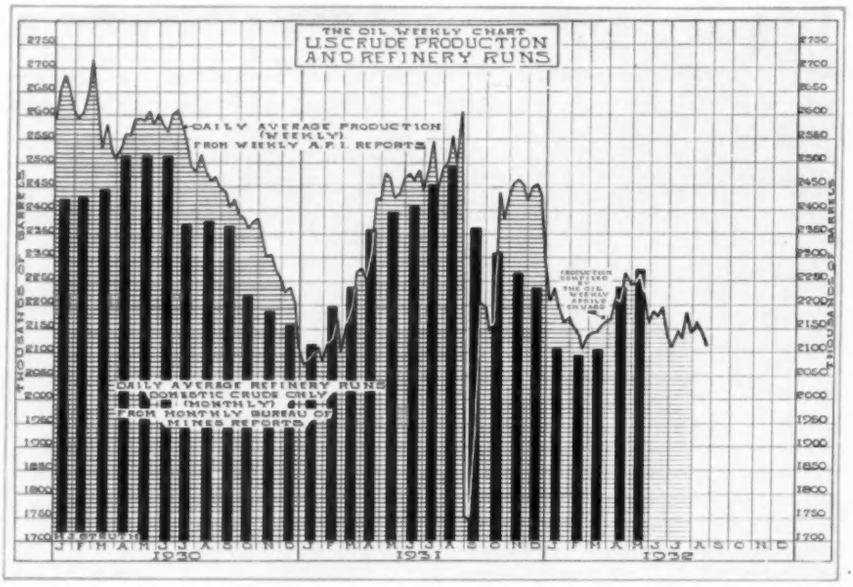
*Includes Michigan.

Mid-Continent Gasoline Market Threatened

ALTHOUGH prices had declined an average of perhaps one-eighth of a cent in the low octane motor fuels during the week the Mid-Continent market has held up remarkably well considering the burden of a large quantity of this material by a Kansas refiner being offered at resale prices under the general level plus the usual complication of dealing with some of the smaller refiners.

Officials of some companies are charging that the cheap materials are being manufactured from crude produced in violation of proration regulations and sold to brokers at prices that cannot be met by legitimate concerns. It seems to be an accepted fact that much of the low octane motor fuel which reaches the retail trade is coming through the hands of bootleggers excepting that which is being handled by major marketers. This situation and the fact that users are turning gradually to stabilized natural gasolines are the two most disturbing factors in the whole market picture and must be disposed of before a really healthy condition can be obtained. Solution of the problem is not simple in view of present conditions.

The low octane or below 57 motor fuels were quoted at 4⅜ cents to 4¼ cents to



the trade and at an apparent average of about 4⅛ cents for resale, a weakening of about one-eighth cent. Middle and high bracket gasolines continued to hold fairly steady due to the fact that they are controlled almost exclusively by major refiners. Burning oils continued strong, some refiners continuing their policy of refusing to sell at the present market. Prices which have been on an upward trend during the past few weeks reached a reported high of 3¼ cents on water white kerosene.

Estimated net crude movement from Oklahoma and Kansas storage during the week ending August 9, was 18,000 barrels daily compared with 20,000 barrels daily for the preceding week.

Texas Refiners Face Decline in Demand

A LAGGING demand for gasoline confronted plant owners at the principal refinery centers in the interior of Texas at the close of the past week, with the average grade of U. S. motor specification gasoline offered in quantities at four cents per gallon in tank car lots. This reaction in the market was sympathetic with developments in the upper section of the Mid-Continent, where the dumping of a large quantity of gasoline at a sacrifice price received widespread publicity and induced jobbers to defer normal buying.

Refiners in East Texas did not escape the price decrease, but most of the largest plant owners have gasoline stocks at a low level through having participated in filling a 55,000-barrel tanker shipment consigned by the East Texas Refining Company to an independent purchaser on the Pacific Coast. This unusually large sale and odd movement of gasoline has placed the East Texas group of plants in a more favorable position to pass through a dull period in the domestic market.

California Gasoline and Crude Markets Sound

DESPITE state production under the total allotment, several California fields are slightly over their allowables. Under ordinary conditions, the excesses would be negligible, but the principal purchasing companies insist that they will make full purchases only where fields are holding their output down to the allowables.

Long Beach, Huntington Beach, Santa Fe Springs, Mount Poso are over their allotments enough to cause concern, with several fields slightly over their quotas. Ventura Avenue is almost 10,000 barrels under its allowable, but this small average has been caused by a combination of circumstances. The underproduction of this field has been responsible for a state total below the figure set by the curtailment committee.

A much smaller crude production is predicted by engineers who think that consumption and shipments during the winter months will be less than during the summer. Any reduction in storage apparently will come through a lower crude production this winter. Exports may increase, on the contrary, if world conditions improve. Inquiries have been more numerous, and they could develop into orders.

An increase in production is expected in a few fields as winter comes along. This applies to Ventura Avenue, and possibly Kettleman Hills. A larger supply of natural gas will be required, and this will make for a larger crude production at Ventura Avenue.

The gasoline market remains firm, and July-August consumption may establish a new record in Southern California. Fewer price cutters are in evidence but the practice has not altogether died out. The major marketers are willing to make a small concession, but when the majority of dealers sell below their lowest price, the retail price of their third grade product will be lowered to meet the comptition. The demand from out-of-state customers was especially good during August, with exports holding steady.

A better fall demand is wanted this fall, but the experience of last fall has dampened the enthusiasm of most marketers of this commodity. The spring demand was best of the year.

Road Oil Sales Show Increase

Washington, D. C.—Bureau of Mines statistics reveal that the sale of road oil in the United States in 1931 was 28.5 per cent higher than in 1930, although lower prices caused the value of the 1931 sales to be 6.3 per cent less.

The increased use of road oils was shown to be due to greater demand for low-cost bituminous types of surfacing, especially in construction of secondary roads.

Sales of the road oil in 1931 aggregated 7,170,102 barrels against 5,578,446 barrels in 1930, while values were $6,944,320 and $7,410,789 respectively. Average sales value was 96.9 cents per barrel in 1930 against $1.328 in 1930, a decline of 27 per cent.

Domestic crude oil was used in making nine-tenths of the road oils in 1931 and five-sixths in 1930, only about half as much road oil being made from imported crude in 1931 as the previous year.

Of the road oil sold in the United States in 1930 and 1931 three-fourths came from three refining districts, the Indiana-Illinois, the California, and the East Coast districts. The Rocky Mountain region showed a noteworthy increase in road oil demand in 1931 as compared with the previous year, and increases were also made in the interior districts of the country. Gulf

Crude Runs to Stills, Motor Fuel Stocks, Gas and Fuel Oil Stocks and Cracked Gasoline Production, as compiled by A. P. I. for Week Ended August 13, 1932

(Figures in barrels of 42 gallons)

DISTRICT	Daily Refining Capacity of Plants			Crude Runs to Stills		MOTOR FUEL STOCKS					Gas and Fuel Oil Stocks	Daily Charging Capacity of Cracking Units			Cracked Production Daily Average
	Potential Rate	Reporting Total	Reporting %	Daily Average	% Operated	(a) At Refineries	(b) Bulk Terminals	(b) In Transit	(c) Other M.F. Stocks	Total Motor Fuel		Potential Rate	Reporting Total	Reporting %	
East Coast	633,700	633,700	100.0	431,300	68.1	6,191,000	10,067,000	1,962,000	355,000	18,575,000	8,517,000	261,300	236,300	94.1	97,900
Appalachian	149,600	137,400	91.8	85,200	62.0	1,393,000	447,000	19,000	290,000	2,149,000	1,058,000	56,300	54,100	96.1	27,600
Ind., Ill., Ky	436,300	431,500	98.9	295,700	68.5	5,129,000	2,556,000	32,000	193,000	7,910,000	4,350,000	330,400	315,400	95.5	87,300
Okla., Kans., Mo	485,700	435,200	89.6	232,700	53.5	3,225,000	818,000	.....	980,000	5,023,000	3,334,000	237,800	219,500	92.3	46,600
Inland Texas	305,700	233,900	76.5	109,700	46.9	1,180,000	36,000	.....	310,000	1,526,000	2,417,000	98,400	88,800	90.2	21,100
Texas Gulf	532,500	531,500	99.8	376,400	70.8	4,235,000	129,000	.....	290,000	4,654,000	9,042,000	352,400	347,400	98.6	85,700
Louisiana Gulf	147,500	147,500	100.0	101,900	69.1	1,400,000	269,000	81,000	83,000	1,783,000	4,535,000	77,000	77,000	100.0	22,000
North La.—Ark.	85,600	83,000	97.0	45,100	54.3	204,000	29,000	.....	68,000	301,000	638,000	35,400	35,400	100.0	8,400
Rocky Mountain	160,900	143,800	89.4	44,900	31.2	1,889,000	.....	.....	21,000	1,910,000	580,000	99,900	98,400	98.5	12,000
California	914,500	884,100	96.7	440,400	49.8	12,427,000	.....	.....	2,835,000	15,262,000	99,264,000	190,800	190,800	100.0	42,100
TOTALS WEEK: August 13, 1932	3,852,000	3,661,600	95.1	2,163,300	59.1	37,273,000	14,351,000	2,094,000	5,375,000	59,093,000	133,735,000	1,739,700	1,663,100	95.6	450,700
August 6, 1932	3,852,000	3,661,600	95.1	2,127,600	58.1	36,939,000	†14,942,000	1,759,000	5,525,000	59,165,000	133,008,000	1,739,700	1,663,100	95.6	459,400

Below is set out an estimate of total motor fuel stocks on U. S. Bureau of Mines basis for week of August 13, 1932 compared with certain August 1931 Bureau figures.

A. P. I. Estimate B. of M. basis Week August 13, 1932 (d)	38,000,000	17,305,000	5,375,000	60,680,000
U. S. B. of M. Motor Fuel Stocks August 1, 1931	37,151,000	14,494,000	4,620,000	56,265,000
U. S. B. of M. Motor Fuel Stocks August 31, 1931	33,928,000	12,757,000	4,125,000	50,810,000

†Revised downward in East Coast due to same inventory adjustment as was indicated in recently issued Bureau of Mines report for June. All A. P. I. East Coast Bulk Terminal Stocks figures published beginning with those of June 4th should be reduced by approximately 900,000 barrels to be on same comparative basis as Bureau figures, thus creating a new series—the originally published A. P. I. June 4th figures being comparable with preceeding weeks the new series being comparable with subsequent weeks.

(a) Stocks at refineries, except in California district, which includes stocks of finished gasoline and engine distillate at refineries, at water terminals and at sales distributing stations and any amounts in transit thereto.
(b) By districts, East of California only. In California, bulk terminal and in transit stocks are included under "At Refineries" heading. See note (a).
(c) Estimated. Includes motor fuel in pipe lines and unblended natural gasoline at refineries and plants, also blended M. F. at plants.
(d) Estimated to permit comparison with A. P. I. Economics Report which is on Bureau of Mines basis.

Summary Review of Field Results

State—	Completions	Oil Wells	Gas Wells	Failures	Initial Prod.
Arkansas	1	..	..	1	.....
California	7	4	1	2	3,750
Indiana	13	4	3	6	147
Kansas	10	4	..	6	1,010
Kentucky	21	10	..	11	290
Louisiana	9	1	..	8	125
Michigan	5	4	..	1	2,715
Mississippi	2	..	1	1	.....
New Mexico	2	1	..	1	4,650
New York	9	9	..	..	44
Ohio	6	3	2	1	82
Oklahoma	27	13	4	10	10,987
Pennsylvania	51	48	2	1	171
Texas	166	135	3	28	878,694
W. Virginia	3	..	3	..	.....
Miscellaneous	1	1	..	..	400
Total	333	237	19	77	903,065

Comparison of Permits Granted For New Wells

State	For week ending Aug. 19	Total this month	Total this year	Total this date last year	1931 year total
Arkansas	0	0	13	25	34
California	3	15	193	246	342
Louisiana	17	41	326	211	309
Kansas	12	49	420	302	475
Oklahoma	43	95	740	561	842
Texas	212	575	5894	3699	6961
Total	287	775	7586	5044	8963

Coast (Texas and Louisiana) refineries, however, sold less than one-fifth as much as in 1930.

Additional details on road oils are included in the report from which the above facts are taken: "Mineral Market Reports No. M. M. S. 143," August 12, 1932, by A. H. Redfield, Petroleum Economics Division, U. S. Bureau of Mines, Department of Commerce, Washington, D. C.

East Texas Gasoline Is Sent to Pacific Coast

Houston, Texas.—An unusual shipment of gasoline was launched recently when a tanker set out from Texas City on the Texas coast with 55,000 barrels of refined East Texas oil, sent by East Texas Refining Company, producer and refiner of East Texas field crude, to Vancouver, B. C., whence it is to be routed by railroad tank cars to Portland, Oregon, where a tank wagon price of 12 cents per gallon prevails. This shipment was erroneously referred to last week as being destined for California.

Gasoline Tax Brings In Large Revenue

Washington, D. C.—Gasoline ranks second in amount of revenue produced by special excise and miscellaneous levies in the new billion-dollar revenue act, being exceeded only by bank checks.

Based upon the last nine days of June, the treasury reports that the one-cent gasoline levy brought in $539,461. The two-cent tax on bank checks meanwhile produced $1,094,287.

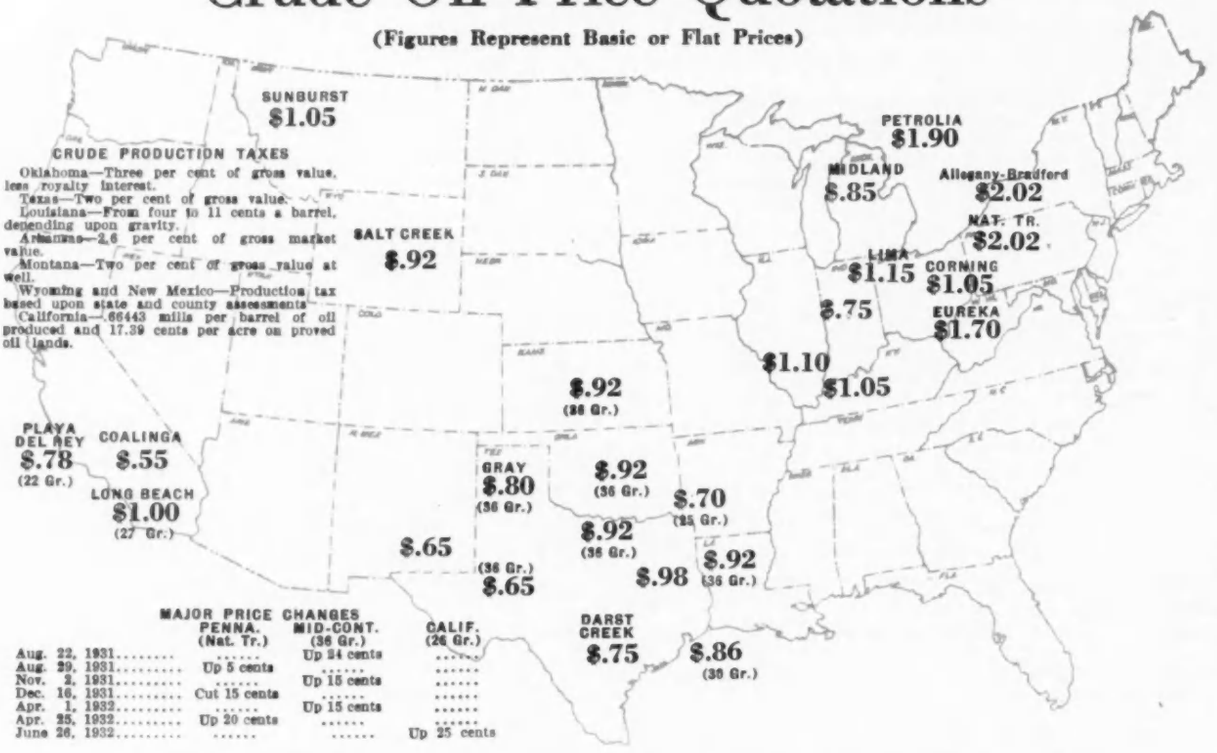
Price Change Made In Eastern States

Effective August 11 a three-cent reduction was made by Joseph Seep Purchasing Agency (South Penn Oil Company) in prices paid for Pennsylvania grade crude oil in lines of Buckeye Pipe Line Company, Southwest Penn Pipe Line Company and Eureka Pipe Line Company.

Oil affected in the price revision is produced in fields of southeastern Ohio, southwestern Pennsylvania, and West Virginia.

Crude Oil Price Quotations

(Figures Represent Basic or Flat Prices)



MAJOR PRICE CHANGES

	PENNA. (Nat. Tr.)	MID-CONT. (36 Gr.)	CALIF. (26 Gr.)
Aug. 22, 1931	.....	Up 24 cents	.....
Aug. 29, 1931	Up 5 cents	.....	.....
Nov. 2, 1931	.....	Up 15 cents	.....
Dec. 16, 1931	Cut 15 cents	.....	.....
Apr. 1, 1932	.....	Up 15 cents	.....
Apr. 25, 1932	Up 20 cents	.....	.....
June 26, 1932	.....	.....	Up 25 cents

Official Postings and Differentials *(Revised to August 19, 1932)*

CALIFORNIA: (Effective June 26, 1932).

Signal Hill, Seal Beach, Alamitos Heights, Huntington Beach, Olinda-Brea Canon, Torrance, and Richfield: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 69 cents; 21 gravity 74 cents; 22 gravity 79 cents; 23 gravity 84 cents; 24 gravity 89 cents; 25-25.9 gravity 93 cents, top posting for Torrance and Richfield; 26-26.9 gravity 97 cents, top price for Seal Beach, Alamitos Heights and Huntington Beach; 27-27.9 gravity $1.00; 28-28.9 gravity $1.03, the top price for Olinda-Brea Canon; 29-29.9 gravity $1.06; and 30-30.9 gravity $1.09, the Signal Hill top posting.

Inglewood: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 71 cents; 21 gravity 77 cents; 22 gravity 82 cents; 23 gravity 87 cents; 24-24.9 gravity 92 cents, the top price.

Playa Del Rey: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 69 cents; 21 gravity 74 cents; 22 gravity 78 cents; 23 gravity 82 cents; 24 gravity 86 cents; 25 gravity 91 cents; 26-26.9 gravity 96 cents, the top price. Field gathering charges of 5 cents a barrel.

Athens, Rosecrans and Dominguez: 24-24.9 gravity 89 cents 25-25.9 gravity 93 cents; 26 gravity 97 cents; and 27-27.9 gravity $1.00 with three cents additional for each degree gravity upward, ending at 32-32.9 gravity $1.15.

Elwood Terrace: 33-33.9 gravity $1.04 and 6 cents more for each additional degree of gravity, ending with 37-37.9 gravity $1.28, all prices f.o.b. ship.

Whittier and LaHabra: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 68 cents; 21 gravity 72 cents; 22 gravity 77 cents; 23 gravity 83 cents; and 24-24.9 gravity 89 cents, the top price.

Montebello: 14 to 20.9 gravity 65 cents; 21-21.9 gravity 67 cents; 22 gravity 70 cents; 23 gravity 73 cents; 24 gravity 76 cents; 25-25.9 gravity 80 cents, the top price.

Coyote Hills: 14 to 20.9 gravity 65 cents; 21-21.9 gravity 66 cents; 22 gravity 70 cents; 23 gravity 76 cents; 24 gravity 81 cents; 25 gravity 86 cents; 26 gravity 90 cents; 27 gravity 94 cents; 28 gravity 98 cents; 29 gravity $1.02; and 30-30.9 gravity, $1.05, the top price.

Santa Fe Springs: 24-24.9 gravity 73 cents; 25 gravity 79 cents; 26 gravity 84 cents; 27 gravity 89 cents; and 28-28.9 gravity 94 cents, with 4-cent differential for each degree of gravity upward to 35-35.9 gravity $1.22.

Newhall, McKittrick and Kern River: 14 to 19.9 gravity 55 cents.

Midway-Sunset, Elk Hills and Buena Vista: 14 to 19.9 gravity 55 cents; 20-20.9 gravity 59 cents; 21 gravity 63 cents; 22 gravity 69 cents; 23 gravity 75 cents; 24 gravity 81 cents; 25-25.9 gravity 87 cents and 5-cent differential for each additional degree gravity ending with 30-30.9 gravity $1.12.

Lost Hills: Same as Midway-Sunset up through 25-25.9 gravity 87 cents, then 26-26.9 gravity 91 cents; 27 gravity 94 cents; 28 gravity 99 cents; 29 gravity $1.02; and ending 30-30.9 gravity $1.05.

Coalinga: 14 to 19.9 gravity 55 cents; 20-20.9 gravity 59 cents; 21 gravity 62 cents; 22 gravity 65 cents; 23 gravity 68 cents; 24 gravity 72 cents; and ending 25-25.9 gravity 75 cents.

Wheeler Ridge: 14 to 19.9 gravity 55 cents; 20-20.9 gravity 57 cents; and 21-21.9 gravity 60 cents, with 3 cents more for each additional degree of gravity, ending 25-25.9 gravity 72 cents.

Oklahoma, Kansas, North Texas (Effective April 1, 1932).

Below 29 gravity: 76 cents with differential of 2 cents for each degree to 40 gravity and above which is posted at $1.00.

North Texas: (Effective April 1, 1932).

Below 29 gravity, 76 cents, with two-cent differential upward, ending 40 gravity and above, $1.

Texas Panhandle: (Effective April 1, 1932)

Gray County: Below 35 gravity: 76 cents, with differential of 2 cents for each degree to 40 gravity and above, 88 cents.

Carson and Hutchinson Counties: Below 35 gravity: 66 cents with differential of 2 cents for each degree to 40 gravity and above which is posted at 78 cents.

West Texas: (Effective April 1, 1932).

Crane-Upton, Crockett, Ector, Howard-Glasscock, Pecos and Winkler Counties, Texas, and Lea County, New Mexico 65 cents.

Southwest Texas: (Effective April 11, 1932)

Refugio: Heavy 80 cents.

Refugio: Light: (Same as Gulf Coast—see below).

Gulf Coast: (Effective April 1, 1932).

Goose Creek, Hull, Liberty, Orange, Pierce Junction, Mykawa, Moss Bluff, Raccoon Bend, Barbers Hill, Sour Lake, Spindletop, Sugarland, West Columbia, Humble and Refugio Light: Below 25 gravity: 80 cents, with differential of 1 cent for each degree to 40 and above which is posted at $1.00.

Mirando: 80 cents; **Salt Flat:** 75 cents; **Darst Creek:** 75 cents; **Pettus:** $1.00; **Markham:** Same as Gulf Coast.

Conroe, Texas: (Effective July 18, 1932).

Two-cent differential applies, beginning 35-35.9 gravity, 90 cents, ending 40 gravity and above, $1.

East Texas: (Effective April 1, 1932)

Flat Price: 98 cents.

North Louisiana and Arkansas: (Effective April 1, 1932).

Caddo, Homer, Haynesville, Bull Bayou, Sabine, Cricton, De-Soto, El Dorado, Cotton Valley, Sarepta, Cartersville: Below 25 gravity 68 cents with differential of 2 cents for each degree beginning with 25 gravity and ending with 40 and above. Top price $1.00 a barrel.

Smackover: 65 cents.

Rocky Mountain States: (Effective June 1, 1932).

Salt Creek: Below 29 gravity 76 cents; 29-29.9 gravity 78 cents with differential of 2 cents each degree to 40 and above. Top price $1.00.

Elk Basin and Grass Creek: $1.10; **Big Muddy:** 98 cents; **Lance Creek,** $1.15; **Rock Creek:** 90 cents; **Sunburst:** $1.05; **Osage:** 98 cents; **Cat Creek:** $1.20; **Pondera:** 90 cents; **Hogback, New Mexico:** 80 cents.

Mid-Western States: (Effective April 11, 1932).

Lima: $1.15; **Indiana:** 75 cents; **Illinois:** $1.10; **Princeton:** $1.10; **Wooster:** $1.25; **Western Kentucky,** $1.05.

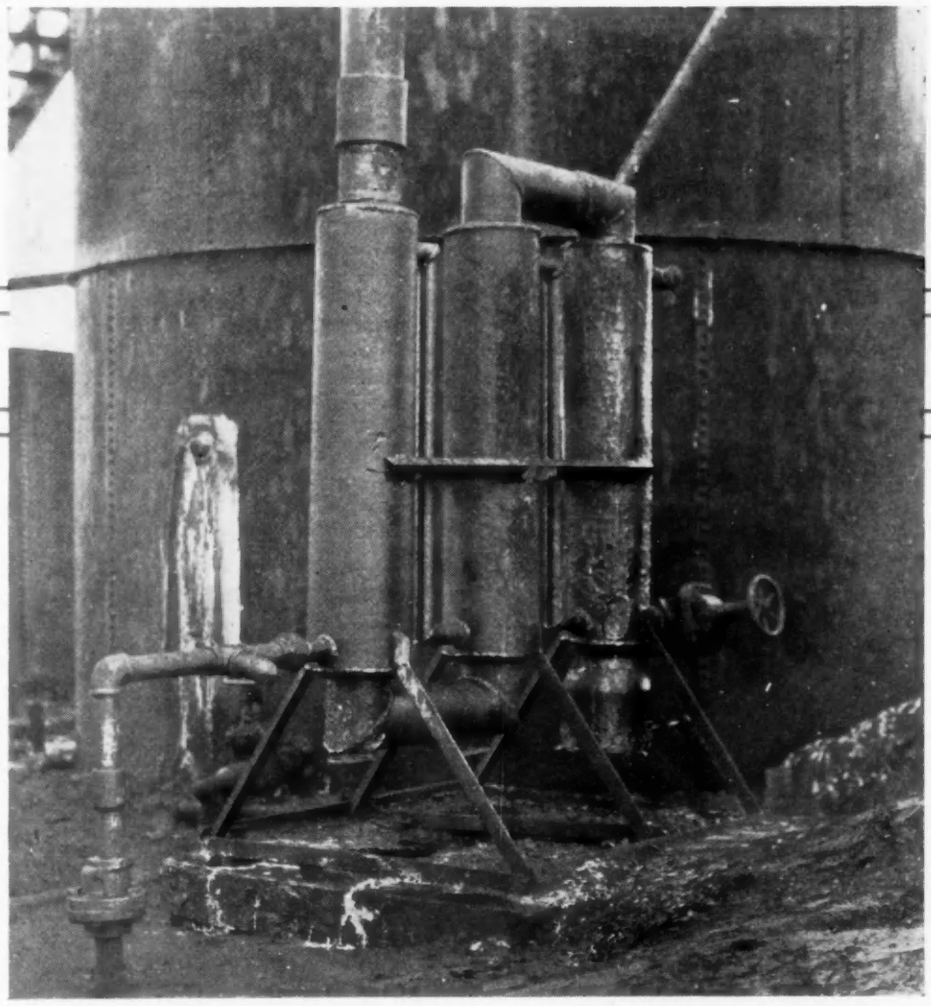
Pennsylvania: (Effective August 11, 1932).

Bradford District: $2.02; **National Transit Oil:** $2.02; **Southwest** Pennsylvania Pipe Line Oil: $1.72; Eureka Pipe Line Oil: $1.67; Buckeye Pipe Line Oil: $1.52; Corning Crude: $1.05.

Michigan: (Effective July 13, 1932), **Midland:** 85 cents a barrel. **Muskegon:** 76 cents to $1.00 a barrel.

Canada: (Effective Nov. 3, 1931).

Petrolia: $1.90; **Oil Springs:** $1.97.



HEATER UNIT USED BY PHILLIPS AT SMACKOVER

Heater permits oil to flow through by thermostatic action. No oil flows except when burner is lighted. Check valve in left foreground blocks the return of oil from heater to supply tank.

Uses Heater to Break Emulsion

WATER has been giving trouble in some of the Smackover wells for a long time. When these wells are pumped, an emulsion is formed which is rather hard to break down. Heating the mixture has been resorted to with satisfactory results. Phillips Petroleum Company designed a simple automatic heater which is small enough that it may be transported over the field without difficulty.

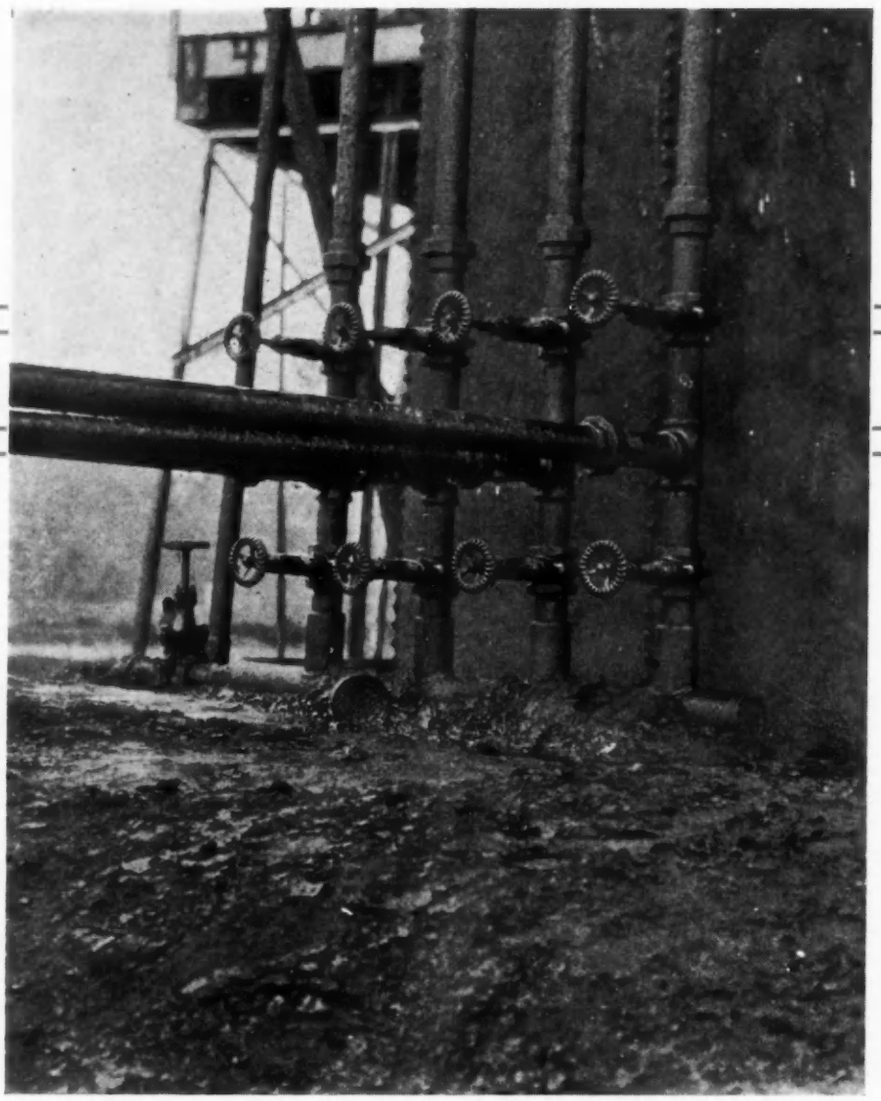
At each battery of flow tanks the lead lines are brought into headers, placed vertically at the tank. One end of the individual lead line header extends up to the top of the tank and the other end connects to a common header placed in a horizontal position on the ground. Two gates are placed in the vertical header, one above and one below the junction of the lead line. If the well is making clean pipe line oil, the lower gate is closed with the upper open in order that the well may make its production directly into the flow tank. If the well is making water emulsified with the oil, the flow is directed through the lower gate into the common header on the ground. This horizontal header leads to an elevated tank set on a steel tower near the battery and is used only in treating the emulsion. When the tank is full, the oil level is just high enough that it will flow to either of the treating tanks.

The heating unit serving the lease is placed beneath this elevated tank and near the lease battery. The heating unit is made of three lengths of six-inch pipe about three feet long, through each of which is placed a piece of four-inch long enough to extend through heads welded in the six-inch piece. As the sections are finished they have the annular space between the four- and six-inch sealed at each end. Four-inch connections are welded between the bottom of the first and second section, joining the extended four-inch

together. The second and third sections are connected to each other in the same manner but at the top. Under the third section is placed the burner receiving gas as fuel from the lease supply lines. At the top of the first section the four-inch line extends upward a sufficient height that draft is placed on the assembly. The completed assembly thus far represents the travel of the heat through the unit. Near the base of the first section a connection is welded in order that a line may be tied in leading from the elevated tank containing the oil to be treated. The first section is joined to the second with two-inch pipe, one end being welded at the top of the first section dropping downward to be welded near the bottom of the second section. The second and third section are connected in the same manner. The outlet for the heated oil is placed at the top of the third section and extends to the top of the settling tank.

The completed unit is set on an angle iron support, legs of which are welded to each side of all three sections. The bottom of the legs are welded to an angle iron base with a piece of angle iron at each end and across at the center to stiffen it.

In operation, the lines are connected from the lease fuel system with a manual control near the burner. The supply line is connected to the elevated tank and between this tank and the unit is placed a check valve to prevent oil from leaving the heater once it has flowed to it. The gates are opened and the emulsified oil in flowing down through the heater, but does not have hydrostatic head enough to pass over into the settling tank. The fire is lighted in the burner, and when the temperature in the unit is high enough to cause partial steaming of the entrained water, it blows over through the line to the settling tank carrying some of the oil. As this oil leaves the unit, more flows from the supply tank and the action is repeated. Circulation through the unit is therefore brought about by thermostatic action. These units have given complete satisfaction. When once in operation, no attention is required except regulation of the flame in the burner under the third section of the unit.



Flow line headers at a battery of tanks. These headers are individual. Each line can be directed either into the flow tank or into the common horizontal header on the ground.

The *Burbank Sand* of Kansas and Oklahoma

GENE WEIRICK
Geologist, Tulsa, Oklahoma

OUR ordinary conception of a subsurface sandstone body is a blanket-like stratum that reaches limitlessly over a wide area without termination. Yet, so great a number of northern Mid-Continent oil-producing sands of Pennsylvanian age are erratic in occurrence, that non-persistence appears to be the rule rather than the exception. For example, the Dutcher, Booch, Bartlesville, Burbank, Skinner, Prue and Cleveland sands commonly grade laterally into shale with striking abruptness.

The present paper deals with the Burbank sand because of its typical discontinuity and the monoclinal, rather than anticlinal, structure of its oil fields.

FIGURE I is a cross section from Okmulgee northwest to Blackwell, Oklahoma. The Burbank sand occupies a stratigraphic position in the Cherokee formation (Lower Pennsylvanian) immediately above the Bartlesville sand and below the "Pink Lime."

Rapid northwest convergence of the Cherokee formation occasions difficulty in correlating the included sandstone members, especially in view of their lenticularity and close proximity to each other. Early Pennsylvanian beds continually overlap toward the northwest so that the Burbank sand is present over an area in Central Oklahoma and Kansas wherein such lower horizons as the Cromwell, Dutcher, Teneha and Bartlesville sands were never deposited.

The absence of distinguishing fossils or lithologic characteristics of the indivdiual sands precludes aid in correlating by these methods. However, with the great number of wells that have been drilled in Kansas and Oklahoma, definite correlations may now be established identifying the Red Fork and Burbank sands of Oklahoma as being equivalent to the "Bartlesville" sand of Kansas. The member lies quite distinctly above the Bartlesville sand but the two are in such close proximity that they are readily confused in long distance correlating.

Distribution of the Burbank Sand

Erratic occurrences of the Burbank sand present a picture of interesting areal distribution. (Figure II). Throughout the Creek-Okmulgee County region of Oklahoma the horizon, commonly referred to as the "Red Fork" sand, occurs in small isolated bodies, irregularly oblong in shape. On the west in Payne, Lincoln, Pawnee and western Osage Counties, the sandstone assumes an entirely different form. Here the member persists over an area of perhaps 1200 square miles with a thickness averaging about 75 feet. Yet, in Kay County, Oklahoma, and Cowley County, Kansas, the horizon assumes the

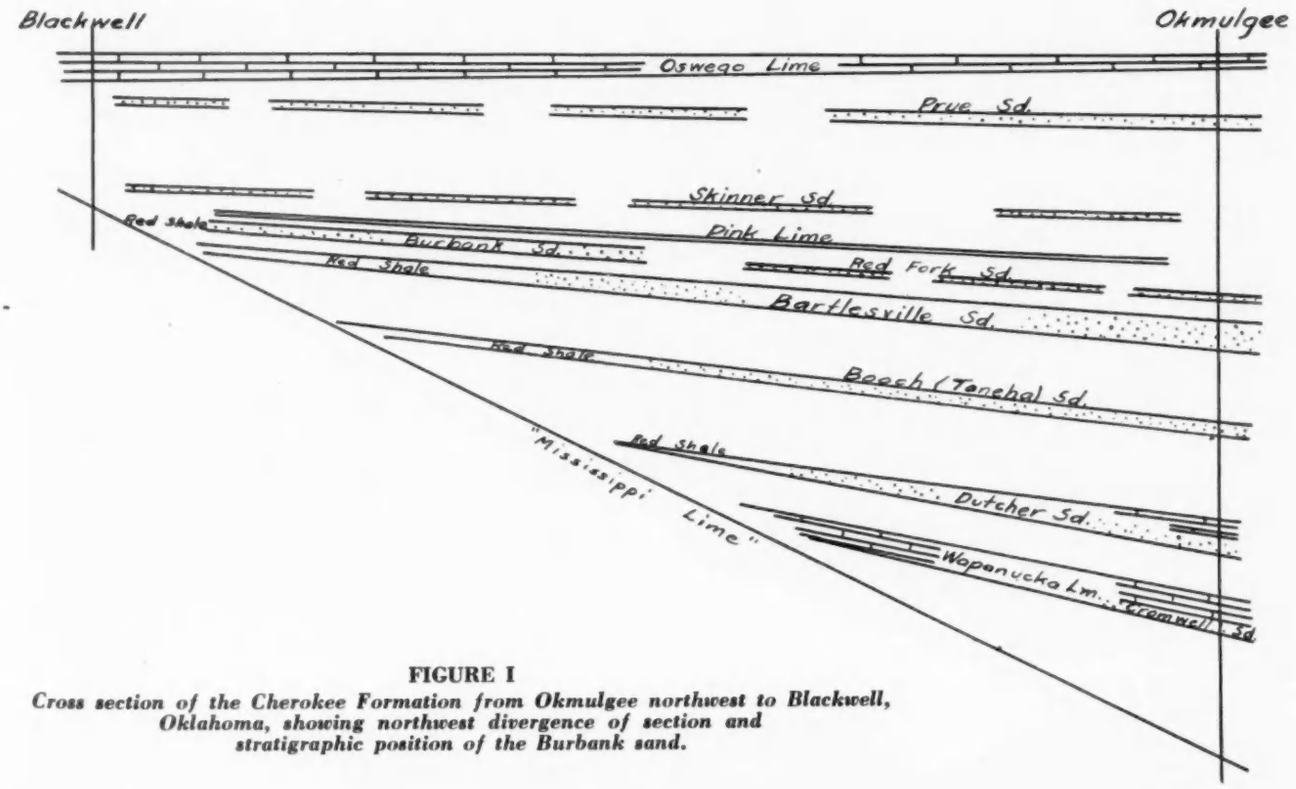


FIGURE I
Cross section of the Cherokee Formation from Okmulgee northwest to Blackwell, Oklahoma, showing northwest divergence of section and stratigraphic position of the Burbank sand.

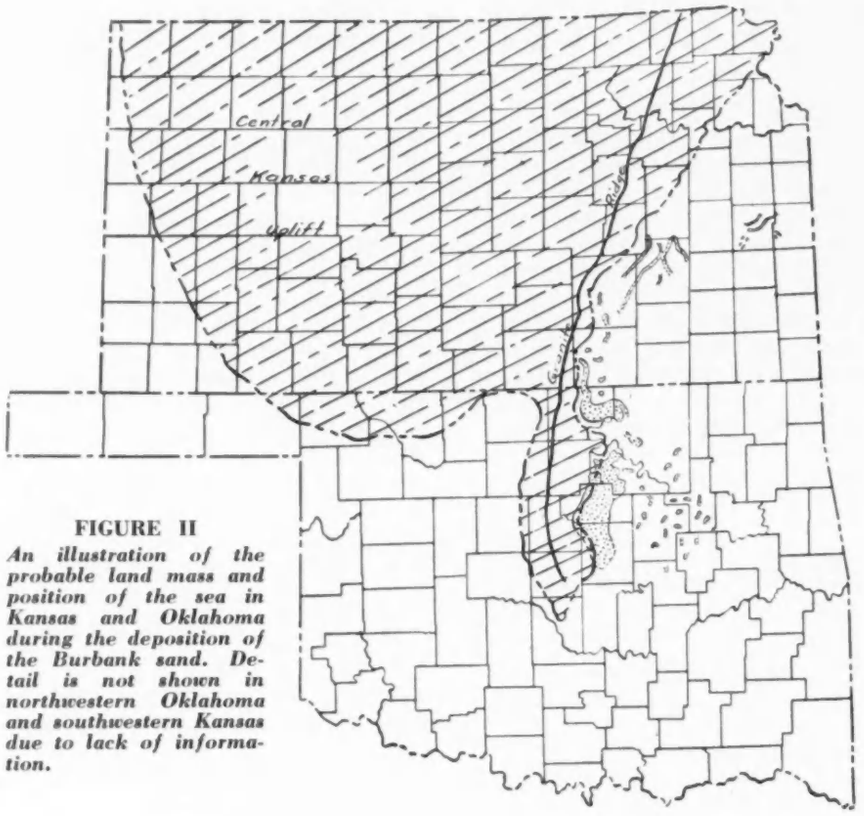


FIGURE II

An illustration of the probable land mass and position of the sea in Kansas and Oklahoma during the deposition of the Burbank sand. Detail is not shown in northwestern Oklahoma and southwestern Kansas due to lack of information.

sinuous appearance of a stream deposit. Farther on the northeast the member becomes long and narrow, forming the well-known "shoe-string" sands of East Central Kansas. In Missouri the sandstone lentils may be observed on the surface outcrop.

The sandstone commonly grades laterally into a sandy or red shale. Often the termination of the sand body is very abrupt. For example, in the Burbank field a thickness of 60 feet in a well may decrease to an entire absence in an offset well.

Origin of the Burbank Sand

During deposition of the Burbank sand a great marine deep was developing in the vicinity of the Ouachita geosyncline on the southeast. Contemporaneously, relative elevation of the Central Kansas Uplift (Barton Arch) was being effected.

Consequently meandering streams were transporting material seaward from the positive Central Kansas Uplift. Most geologists are of the opinion that this positive element was rather low-lying. A small part of the exposed material was precambrian granite, which, upon distintegration, furnished sand for the streams, to be transported toward the south and southeast to the sea. The exact position of the shore line during these Burbank times is difficult to determine. Many geologists believe the "shoe-string" sands of Kansas to be fossil river beds, therefore adducing that the Greenwood-Anderson County region was yet above marine water, the sea lying farther to the south in Oklahoma. Opposed to this theory, however, are the facts that the long narrow bodies of sand are extraordinarily straight; they lie in a direction apparently parallel with the land mass; they exhibit indications of discontinuity longitudinally; the sand is apparently contemporaneous in deposition with a laterally adjacent red shale; non-marine fossils are not included with the sand; the base of the sand is not concave upward.

Some few miles on the north and northwest of the Burbank sand deposition, the "Mississippi Lime" was positively above sea level since convergence of the Cherokee section in these directions exhibits an overlapping of beds younger than Burbank onto the "Mississippi Lime."

From the appearance of the areal distribution of the Burbank sand a conclusion seems to fit the conditions by interpreting the long narrow strips of sand in Kansas being the remains of offshore bars paralleling the actual shore-line. That portion of the sand body in Central Oklahoma appears to be beaches, partially submerged. The "Red Fork" sand deposition possesses a striking resemblance to that of an abrasion platform. The thick, persistent condition of the Savannah sandstone, the upper portion apparently equivalent to Burbank, then is the result of continental terrace deposition. The "red rock" laterally adjacent to the sand in Central Oklahoma and Kansas may have been partially a subaerial deposit, coming to rest in the lagoons and marine lakes adjacent to the shoreline.

During this Cherokee time a "coast range" was building in the form of the granite ridge. This structural feature, although in closer proximity to the sea, was topographically higher than any of the great land mass on the west.

The complete picture is then a land mass in Central Western Kansas bordered on the east by a low-lying "coast range" (Figure II). A dozen miles farther east this coast range (the granite ridge) was footed by the Burbank sea which was building offshore bars in East Central Kansas, beaches in Central Oklahoma, depositing a veneer of sand over a submerged abrasion platform in East Central Oklahoma and a thick mass of sand farther seaward in Southeastern Oklahoma.

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One is impressed with the similarity in miniature to our present east coast of North America. The granite ridge has its simile in the Appalachians and the land mass of Oklahoma in the present appearance of Florida with its marshes and lagoons. Lack of information in Western Oklahoma prevents definite determination of the shoreline's position in this region except that divergence of section southward from the Central Kansas Uplift would suggest its location somewhere in Northwest Oklahoma in an east-west direction.

Oil in the Burbank Sand

A list of oil pools wherein the Burbank sand or its equivalent produces oil follows:

Burbank, South Burbank, Quay, Yale, Meramec, South Mervine, Rainbow Bend, Eastman, Fox-Bush, Teeter, Scott, Seeley, Madison, "The Golden Lane," "Shoe-string pools" of Kansas.

None of these pools are present due to the law of anticlinal accumulation. A few pools are located "on structure" however, such as Ingalls, Ripley, Mehan and other small fields in central Pawnee and Payne Counties, Oklahoma. Thus, by great majority, the Burbank sand pools are located on monoclinal dip, anticlinal structure playing no part in the accumulation of oil.

Figure III illustrates the position of these monoclinal pools in the sand body. The oil has accumulated in certain recesses along the eastern margin of the sand. Apparently films of oil originally migrated through the water-bearing sand up the dip until the "bank" of impervious shale on the east prevented further upward movement. The oil moves upward attempting to seek a level above water. Thus after a long period of time a great quantity of oil and gas accumulates along the eastern margin of the sand body without anticlinal influence. On the south and west of all these monoclinal pools the sand is present but contains water. This condition is not only true of such pools as Burbank or Rainbow Bend but is quite apparent as applied to the shoe-string pools of Kansas. Although the sand in the Teeter-Scott trend of Greenwood County is strictly an oil sand, the horizon contains water entirely farther to the southwest in Butler County.

In addition to a termination of the sand body on the east, it seems essential for oil accumulation that reservoir termination must also occur adjacently on the north and south as well. Thus the resulting pool is in effect an anticline. Wherein oil is trapped under anticlinal conditions by reversed dips, the same is accomplished under monoclinal conditions by proper absence of the reservoir rock.

The foregoing theory of oil accumulation in the Burbank sand has been expressed by many geologists in the past. A study of many pools in additional sands of the northern Mid-Continent suggests the same condition of oil migrating up the dip until an impervious shale body prevents further migration. We may add to the list the many Hunton lime pools of the Seminole district, the Skelly pool of Lincoln County, the Bristow, Slick, Kellyville, Glenn, Bird Creek, Bartlesville, Nowata and Davenport pools. Now that the greatest of them all, East Texas, has been found to be of the same type, more study should be directed toward the general characteristics of the monoclinal pool. No doubt there remain undiscovered a number of pools not "on structure." Large areas containing no anticlinal features are inclined to be condemned by some, yet possibly 30 per cent of the total production from Oklahoma has been produced from the "Burbank field type" of structure.

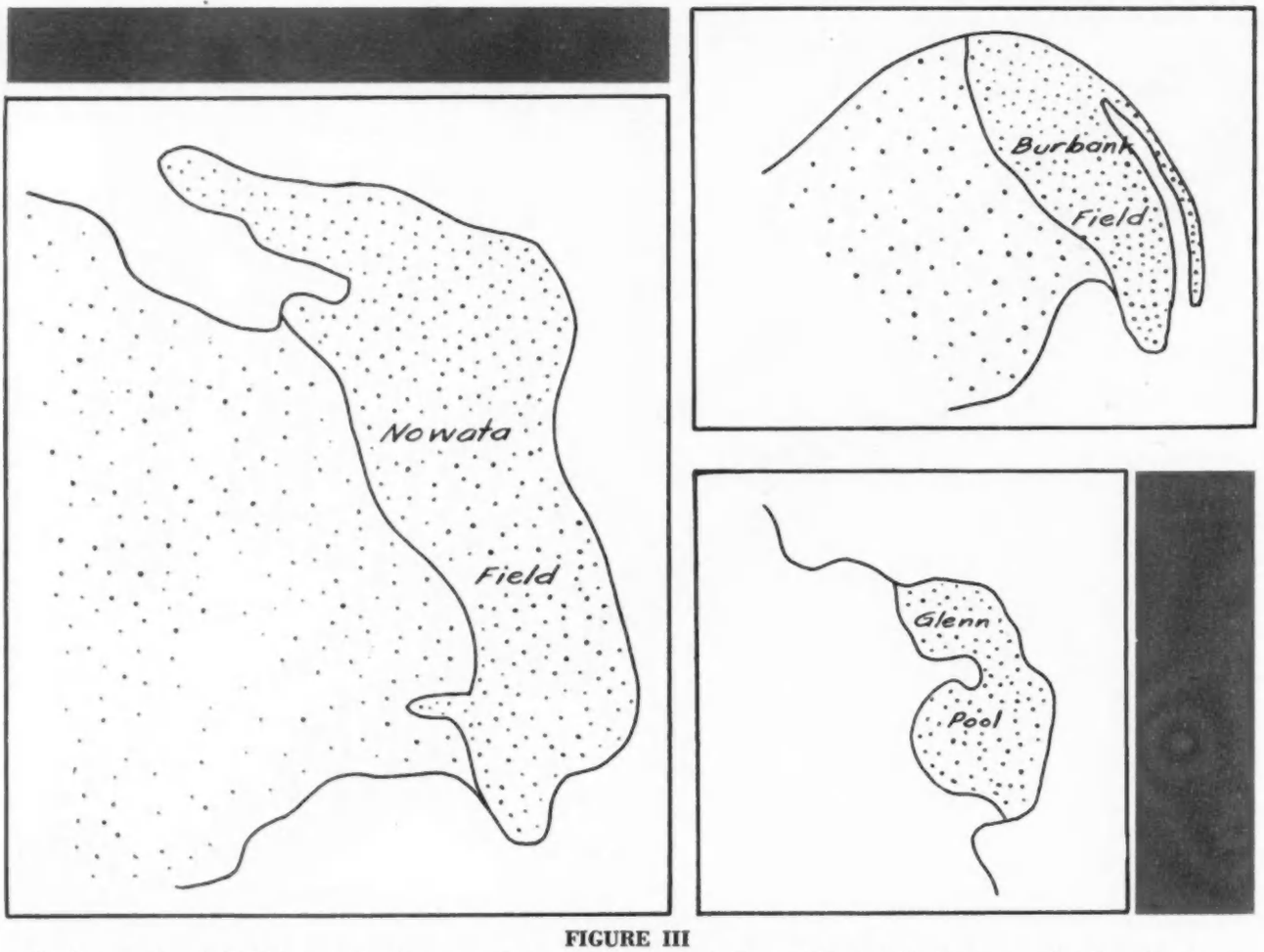

FIGURE III

Various pools of Oklahoma wherein accumulation of oil is not influenced by anticlinal structure but by migration of oil up the normal dip into recesses along the eastern margin of the sand body.

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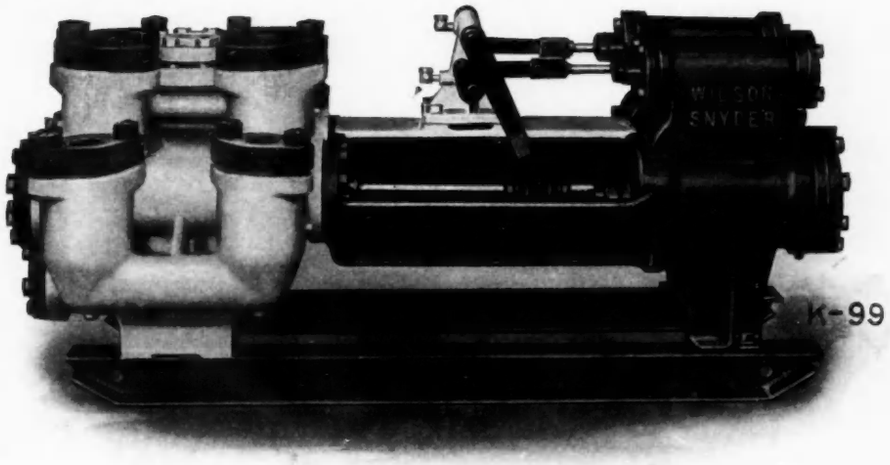

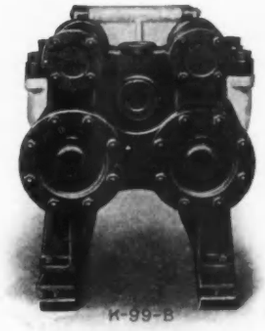

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Nomograph *for* Weymouth Formula for Natural Gas Flow

LEONARD L. HOHL
Engineer, Berkeley, California

THE intricacies of the Weymouth Formula for flow of natural gas in pipe lines has lead to the construction of charts of various kinds for its solution. In most of these cases a series of charts had to be made to cover the entire range of pipe sizes and length in common use. The writer believes that the nomograph herewith presented covers the entire range usually required to a degree of accuracy equal to that warranted by practical considerations, i. e. within the range of most such diagrams.

The basis of the diagram is specific gravity 0.60 (air equals 1), base temperature 60°F., flow temperature 60°F., atmospheric pressure 14.4 pounds per square inch absolute which puts the formula in the form:

$$Q = 36.93\, D^{8/3}\, L^{-1/2}(p_1^2 - p_2^2)^{1/2}$$

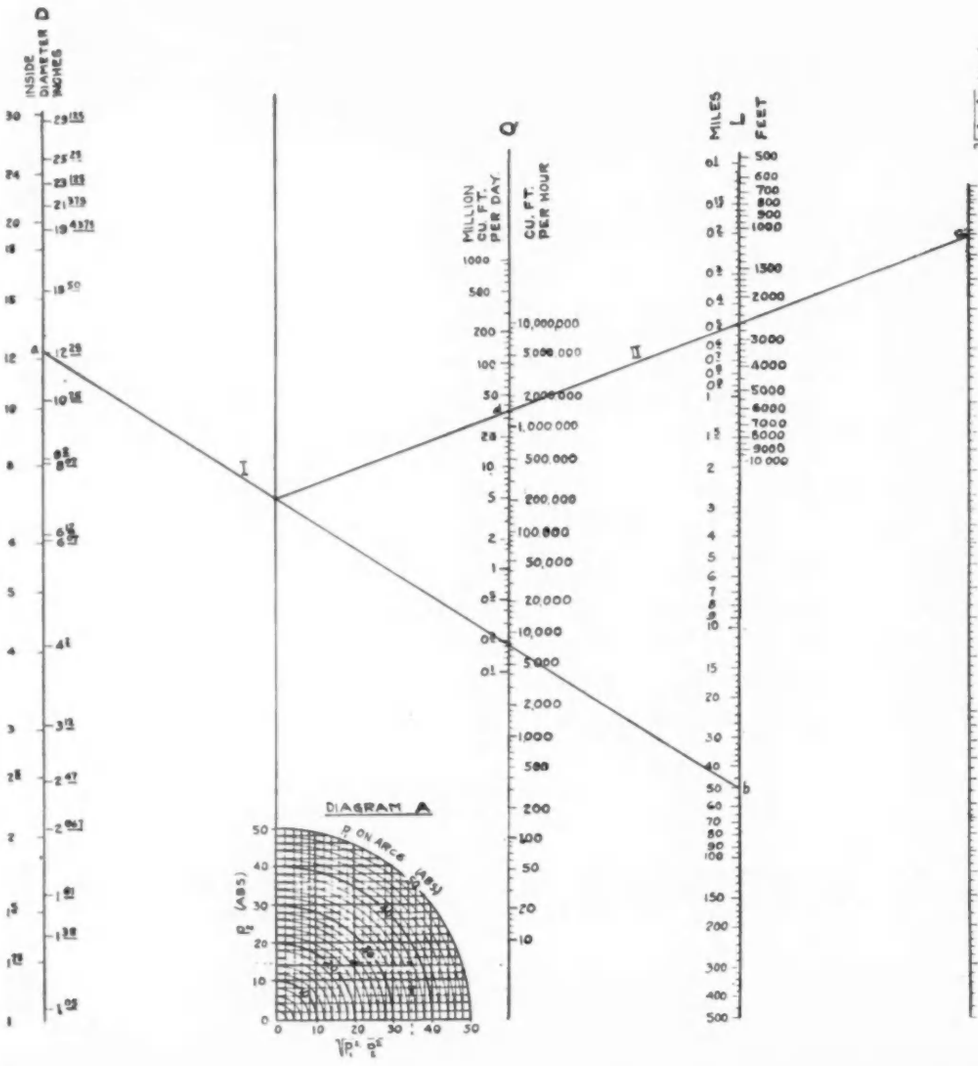
in which Q is discharge in cubic feet per hour, D is diameter in inches, L is length in miles, p_1 and p_2 are inlet and outlet pressures in pounds per square inch absolute.

If densities are much different from 0.60, correction factors may be applied to Q as per table:

Specific Gravity	Correction Factor	Specific Gravity	Correction Factor
1.00	0.78	0.70	0.93
0.95	0.80	0.65	0.96
0.90	0.82	0.60	1.00
0.85	0.84	0.55	1.04
0.80	0.87	0.50	1.09
0.75	0.89		

The nomograph may also be used for determining equivalent pipe lengths. The procedure is illustrated by an example: Given p_1 = 375 pounds (361 gage); p_2 = 143 pounds (129 gage); L = 50 miles, D = 12.31. Find Q. 1. Enter diagram A at p_2 = 14.3 (1/10th of actual value) passing horizontally to arc scale 37.5 (1/10th of actual value), thence down to 34.3 (1/10th of actual value). 2. In nomograph proper connect D=12.31" with L =50 miles (line I) and note intersection on swing line. 3. Connect intersection on swing line with 343 on pressure ($\sqrt{p_1^2 - p_2^2}$) line and read intersection on Q line 1,430,000 cubic feet per hour or 34 million cubic feet per day. The above example is taken from a "Report of Investigations on Factors Influencing the Flow of Natural Gas Through High pressure Transmission Lines" by Berwald and Johnson of the U. S. Bureau of Mines R. I. 3153. December 1931, being example 12 of Table 1.

Equivalent lengths of other diameters giving the same pressure drop may be obtained by swinging a straight edge around the swing point previously found for a known length and diameter and reading the new length.



Methods for the Inspection of *Buried Pipe*

STANLEY GILL
Consulting Engineer, Houston, Texas

This is the second of a series of papers dealing with methods for determining the condition of buried pipe-lines. The first paper, which was published in the May 30, 1932 issue of The OIL WEEKLY, discussed the location of points at which inspections should be made in order to obtain an accurate statistical picture of the condition of all the pipe in the line. The present paper deals with methods to be used in inspecting buried pipe and coatings, while the third paper of the series will describe methods for the interpretation of inspection data.

THE accuracy with which a program of inspection will determine the condition of the entire length of a buried pipe line is, of course, dependent upon methods used for determining the condition of pipe and coating at the points selected for inspection. The considerations which control the location of these points have been discussed in a previous paper[1]. The present paper describes methods which have been found to give accurate results from the inspection of pipe and coatings without excessive expenditure of effort.

It might seem that the inspection of buried pipe lines would not involve any particular difficulties; that any qualified individual could report accurately upon the condition of coating and pipe. While this is true to a certain extent, it is nevertheless a fact that misleading results may be obtained often by a qualified and conscientious inspector if he does not use proper methods of examination. Accurate and dependable data can be secured only by adopting and adhering to a systematic inspection procedure. Such a procedure need not be, and in fact should not be, particularly complicated, but should be designed to determine, with the desired degree of accuracy, the condition of pipe and coating. A proper and accurate inspection is not necessarily more difficult than is a less thorough examination. Accuracy in an inspection depends only upon a decision as to the methods which are to be used to determine the condition of pipe and coating, upon the establishment of a definite program of inspection incorporating these methods, and inspection which follows this systematic program, and upon an accurate record of the results of this inspection.

[1]Oil Weekly, May 30, 1932.

Bell-Holes at Inspection Points

At first sight there would seem to be no necessity for specifying the manner in which bell-holes for the inspection of a pipe line should be dug. However, it is a fact that proper inspection is impossible unless bell-holes are large enough to make possible easy access to all parts of the pipe surface, and for this reason the workmen who are entrusted with the duty of uncovering the pipe prior to inspection should be definitely instructed as to the necessary dimensions of the bell-holes. It is not possible to inspect pipe properly by the use of a mirror on a stick. The bell-holes must be large enough so that all parts of the pipe surface can be readily examined. The general criterion for bell-holes at inspection points may be expressed by a quotation from The Specialist—"dig 'er wide an' dig 'er deep." Adherence to this rule will make inspection far more rapid, and will result in accurate and thorough examination. To reduce it to more specific terms, it may be said that a bell-hole dug for inspection purposes should not be less than five feet, and preferably as much as 10 feet, in length; it should be dug to a depth of at least

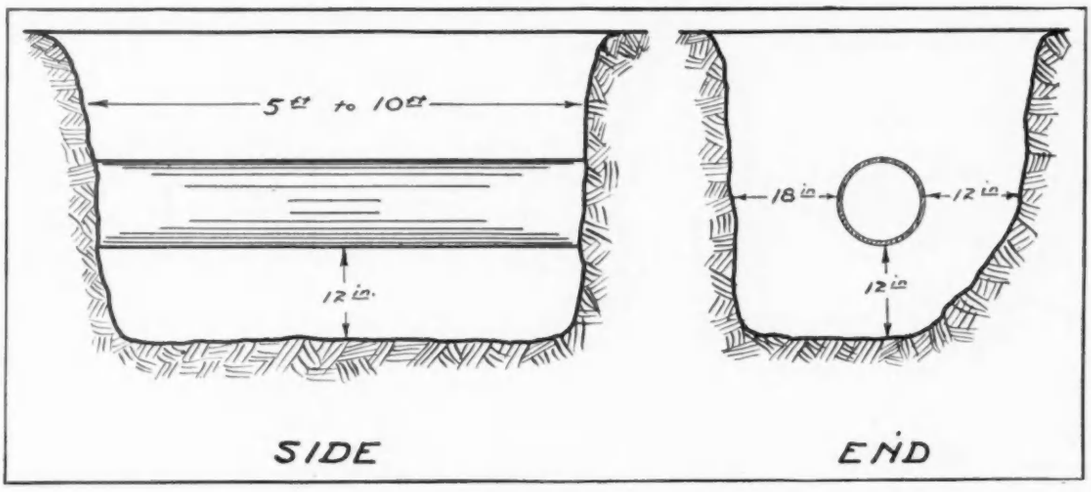


FIGURE 1
Minimum dimension of bell-hole to permit ready access to pipe surface for inspection

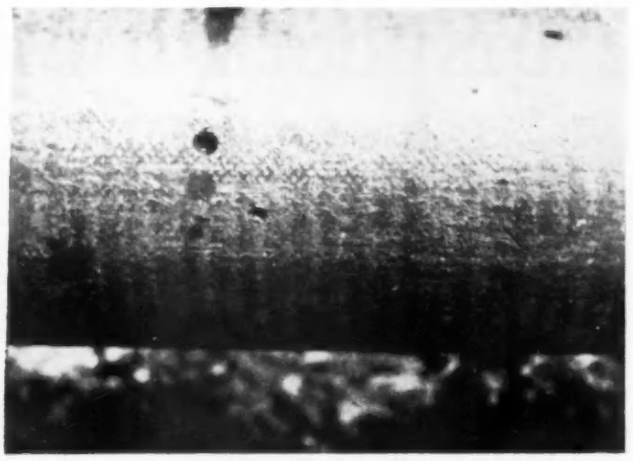


FIGURE 2
Deep pits on pipe which has not rusted.

one foot below the bottom of the pipe, and on one side of the pipe the wall of the ditch should be at least 18 inches, and preferably as much as two feet, away from the pipe. The wall on the other side of the ditch may be dug to within one foot of the pipe. Figure 1 illustrates these minimum dimensions.

Cleaning Pipe Before Inspection

Whether the line to be inspected is bare or coated, great care should be taken in cleaning it prior to inspection, in order to prevent changes in condition which might lead to misleading conclusions. In the case of uncoated lines, where the only object of inspection is to determine the depth of pits, this is not extremely important; but in the case of coated lines precaution should be used to avoid mechanical damage to coatings before they are inspected. It is not advisable to uncover uncoated lines more than two or three days prior to inspection. In digging the bell-holes care should be taken to avoid striking the coating with tools. For this reason, it is usually best to leave one or two inches of soil around the pipe in digging the bell-hole, and to remove this soil by hand or with wooden paddles. After removing as much soil as possible in this way, the remainder should be washed off. For washing, rags or soft bristle brushes may be used, and plenty of water should be employed to reduce rubbing of the coating to a minimum. Of course washing methods should be modified depending upon the type of coating, and a method selected which will make possible rapid cleaning without damage to the coating. In cleaning uncoated lines more vigorous methods are permissible, and it is frequently advisable to facilitate inspection and measurement of depth of pits by cleaning the pipe with wire brushes and scrapers prior to inspection.

To recapitulate briefly, inspection of a line will be greatly facilitated by digging bell-holes of a size sufficient to make possible ready access to all parts of the pipe surface. Thought should also be devoted to cleaning the pipe in advance of inspection. The methods of cleaning should be designed to minimize the work which need be done by the inspector, but care should also be taken to avoid damage to coatings during cleaning. For many reasons the bell-holes should not be dug too far in advance of the inspection. This is particularly true of coated lines, for exposure to the weather may cause appreciable change in the condition of a coating, but also applies to uncoated lines, where the dangers of filling the bell-holes with cows or rainwater are equally great.

Inspection of Uncoated Lines

In determining the extent to which buried pipe has deteriorated as the result of corrosion, the only acceptable criterion is actual measurement of the depth of pitting. The superficial appearance of the pipe may be, and, in fact, usually is, highly deceptive. The mere fact that pipe is badly rusted does not mean that it is in bad condition. A slight attack, distributed uniformly over the surface of the pipe, may cause it to be coated heavily with rust, but may not result in any detrimental thinning of the pipe wall. On the other hand, destructive pitting may occur without the formation of any visible rust. The two deep pits in the line illustrated in Figure 2 exemplify this condition. It may be seen that the pipe has not rusted at all, and that the original mill marks are perfectly clear, but that deep pits have been formed. The extent to which the pipe is

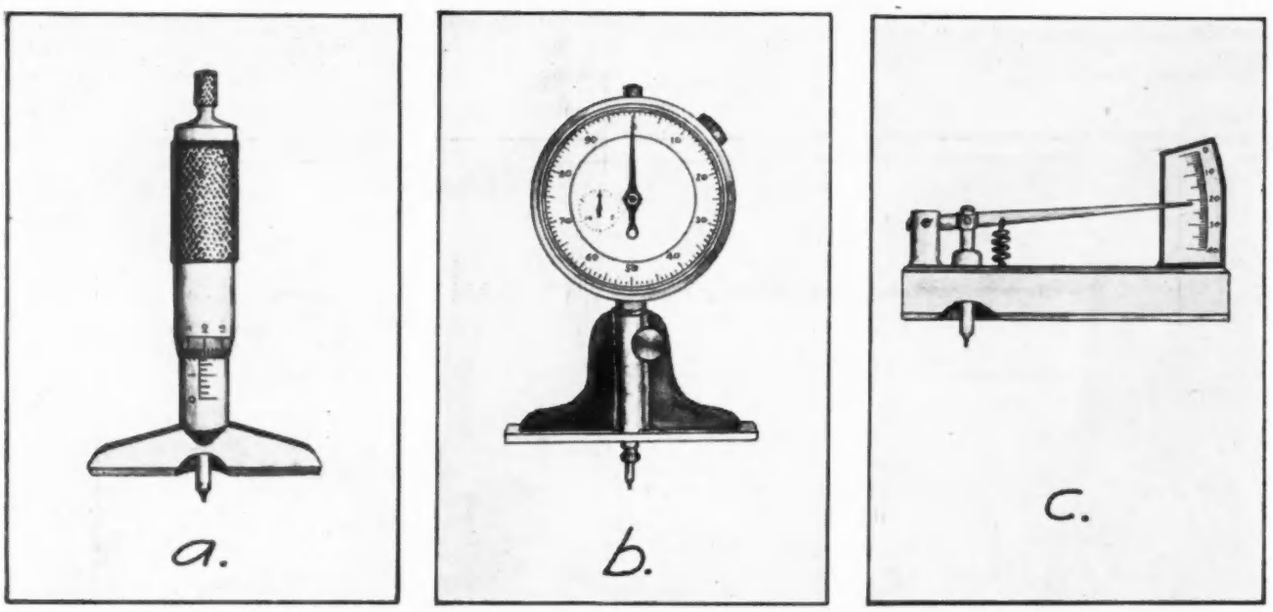


FIGURE 3
Types of gauges for measurement of depth of pitting: A. Micrometer depth gauge. B. Dial micrometer with depth gauge attachment. C. Simple type of lever-action depth gauge.

FIGURE 4
Severely pitted line pipe. Compare with Figure 2.

rusted may have a slight scientific or academic interest, but the only practical measurement of corrosion damage is a determination of the depth of the pits.

It is not necessary that the depth of these pits should be measured with extreme accuracy. Measurement of depth of pits to a thousandth of an inch is absolutely unnecessary. This is because of irregularities of the surface of the pipe, which may result in variations of as much as .020 inches. In addition, the thickness of wall of pipe varies over a considerable range; in any one shipment of pipe the total variation may amount to 10 per cent or 15 per cent of the wall thickness. In general, the average thickness of wall will be somewhat greater than the nominal thickness. It is a simple principle of precision of measurement that any result obtained by calculation of observed data is no more precise than are the observations themselves. For example, ten objects weighing "2 or 3 pounds" each will have a total weight of "20 or 30 pounds;" the estimate of the weight of each object may be in error by as much as one pound, and the total weight obtained by multiplying "2 or 3" by 10 is uncertain to the same degree as was the estimate of weight, even though the number 10 is known exactly. As applied to the inspection of pipe lines, this means that calculated results on depreciation or probable life of lines will be numerically accurate only within the range of variation of thickness of pipe wall, and that they are not made any more accurate by measuring the depth of the pits to a greater degree of precision. Reducing this to practical terms, it may be said that the precision of a pipe line inspection is not materially increased by measuring the depth of the pits with an accuracy greater than $\pm$.010 inches, and that a precision of $\pm$.005 inches will insure accurate calculations.

Any method of pit measurement which will produce readings within the desired range of precision may be employed. The most generally used instrument for measurement of depth of pits on pipe lines is a simple micrometer gauge (Figure 3a). Depth gauges used for this purpose are usually modified by having the ends of the spindle ground to a point which is small enough to enter small pits. It is also usual to grind out the side of the surface bar adjacent to the spindle, so that the spindle point will be visible at all times. This facilitates measurement. Much more rapid and equally accurate readings may be obtained by the use of a dial type gauge (Figure 3b). This is more expensive than is the simple micrometer, but makes possible far more rapid inspection. As in the case of the micrometer, the spindle of the dial gauge should be ground to a point. Often, simple gauging equipment can be used. Figure 3c illustrates the principle of a simple pit depth gauge which was designed by the engineers of the Humble Pipe Line Company. It may be seen that movement of the spindle is amplified through a long lever arm, and that depth of pits is read directly from the scale. Such a gauge, if carefully made, will read to a precision of $\pm$.005 inches. Other types of depth gauges have been used; a simple type of Vernier gauge which will read to $\pm$.010 inches, has proven highly satisfactory. In general, it may be said that any gauge which will read with the required degree of precision is satisfactory for the purpose, and that those methods which make possible the simplest and most rapid reading should be used.

It is always necessary to record the depth of a considerable number of pits on any section of pipe which is inspected. Simple visual examination will seldom serve to pick out the deepest pits, and certainty of results can be obtained only by gauging enough deep pits to make certain that the deepest pits in a section of pipe have been measured. No hard and fast rules can be laid down on this point, but it is usually necessary to gauge from ten to twenty pits on each five or ten-foot section if the pipe is at all generally corroded. Of course, in many cases there will be only two or three measurable pits on a section of pipe examined.

Measurements should not by any means be confined to the bottom of the pipe, although the bottom is usually sub-

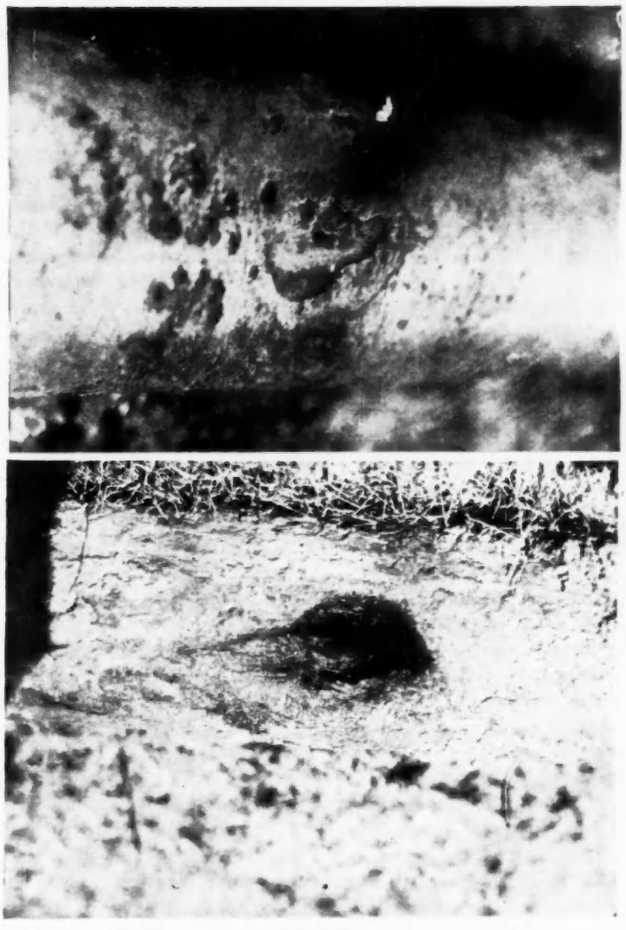


FIGURE 5
Two types of corrosion illustrated by cases in which the pipe was punctured: (a) Localized attack. (b) General waste of pipe surface.

FIGURE 6
Heavy scale of corrosion products.

ject to more severe corrosion than are the top and sides. This is by no means universally true. A detailed inspection of many miles of pipe lines has shown that the deepest pits are located on the top or sides of the pipe at least 20 per cent of the time.

It is common practice to record only the depth of the deepest pit in the section of pipe under consideration. This is not particularly good practice, and more valuable data will be secured if a record is kept of the five or ten deepest pits in the section of pipe examined. In addition, the record of the inspection should contain some description of the extent of the corrosion, as this is of the greatest importance in determining the actual condition of the pipe and the extent of the expenditure which will be necessary for its repair. This may be seen by comparison of Figure 2 and Figure 4. Although the pits on these two joints are of approximately the same depth, repair of the pipe shown in Figure 2 could be accomplished very simply, while the joint of pipe shown in Figure 4 would have to be replaced or covered by a very large welded patch. The difference between these two joints of pipe would be shown by a record of the depth of the five or ten deepest pits on each, and should also enter the report of the inspection in the form of a descriptive phrase covering the distribution of pitting on each. A similar comparison may be made between the two joints of pipe shown in Figure 5. Although both of these joints have been punctured by corrosion, one has been generally corroded, and its wall thickness reduced to a point where no repair is possible, while the other has suffered only localized corrosion, and could be repaired by the use of a relatively small patch.

Figure 5a illustrates the most difficult problem in the measurement of corrosion which is encountered in the inspection of pipe lines. In this case, the entire original surface of the pipe has been destroyed by corrosion. Where such corrosion has punctured the pipe, the depth of penetration is of course known; but before it has proceeded to this length it is impossible to measure the depth of penetration by the use of depth gauges which are generally employed for pit measurements. Numerous more or less tricky schemes have been used or proposed for measuring the destruction of surface in such cases as that shown in Figure 5a. None has proven particularly satisfactory. The methods which have been suggested for the purpose are widely diversified. For example, large micrometer calipers have been used to measure the outside diameter of the corroded pipe; this method is both troublesome and expensive, and will give satisfactory results only when some part of the original pipe surface is unattacked on a side of the pipe opposite to that which is corroded. The use of circular rings shaped to the original outside diameter of the pipe has been proposed to provide a surface from which the usual type of depth gauge can be employed. This also is cumbersome and unsatisfactory, and will give results of workable precision only when very carefully employed. Many other methods have been suggested. However, it may be said that none is particularly satisfactory. Ordinarily, cases in which the original surface is completely destroyed are rare. It is usually true that some part of the original pipe surface will remain, even in instances of such general attack, until after the general surface corrosion has either punctured the pipe or weakened it to such an extent that it will not hold line pressure.

Complete destruction of the surface of the pipe, and less frequently, severe pitting attack, are accompanied by the formation of a heavy scale of corrosion products, such as that illustrated in Figure 6. Due to the variability in thickness and character of such scales, little information of practical value can be obtained from measurement of their thickness or description of their character. It is usually advisable, for purposes of record, to include in the report of an inspection a brief statement as to the scale on the pipe at each inspection point, but this is not essential. It is occasionally possible, where the surface of a pipe has been completely destroyed by corrosion, to estimate the extent of penetration from the scale, but this is a complicated procedure, involving chemical determination of the actual quantity of iron which is contained in the scale from a definite area of the pipe surface, and does not possess any wide practical utility in pipe line inspection.

In general, the actual extent of corrosion of a section of buried pipe can be most satisfactorily determined by simple measurement of the depth of pits, using some type of depth gauge which will measure pits to a precision of $\pm .005$ inches to $\pm .020$ inches, by recording the depth of five or ten deepest pits on a section of pipe, and by a brief description of the extent and distribution of corrosive attack. In exceptional instances, where the original surface of the pipe has been completely destroyed by corrosion, other methods of measurement may be necessary; but in such cases corrosion is usually so severe that puncture will have taken place.

Inspection of Coated Pipe

The inspection of coated pipe lines presents considerably greater difficulty than does the inspection of bare pipe. In the latter case, the condition of the pipe may be expressed as an entirely definite number, the depth of pitting; while in the case of coatings there has not as yet been devised any entirely satisfactory means of expressing the degree of break-down of the protective layer.

It is true that in the case of coated pipe, as in the case of uncoated pipe, depth of pitting of the pipe metal affords the only practicable and unquestionable criterion of depreciation. However, the depth of pitting under a coating is not a simple function of soil action, but is a measure of the combined effects of soil corrosion and the performance of the coating. Pitting measurements must, however, be accepted as the only fundamental measurement, in the case of coated, as well as in the case of uncoated, pipe.

Inspection of coated pipe, therefore, necessarily involves stripping and washing the coating from the pipe, and measuring the depth of pits by a procedure exactly the same as that which is employed in the case of uncoated pipe.

Before the coating is removed, however, it is essential that it should be thoroughly examined in order to determine the extent to which it has deteriorated. The necessity for this is obvious. In many cases it will be found that pipe inspected

has suffered little or no corrosion, but that deterioration of the coating has proceeded to the point where it affords little or no protection. In such a case, subsequent corrosion of the pipe may be extremely severe, and this possibility will not be disclosed by the pitting measurement.

A great deal of study has been devoted to this matter of determining the extent of break-down of coatings. The most valuable methods have been developed at the United States Bureau of Standards, in connection with the American Petroleum Institute and the American Gas Association co-operative tests of pipe-line coatings. The methods which have been devised make possible reproducible results, but there is as yet no certain means of interpreting the results obtained or of deriving from them numbers which can be applied with certainty to a prediction of the future performance of the coatings. Similarly, there is no certain means of determining to just how great an extent the coating has retarded corrosion of the pipe.

In view of the difficulty of interpretation of inspection data upon coatings, it is necessary to make as thorough an inspection as possible, and to secure a record which will cover all points which may be of value in correlating the data. To secure adequate information, inspection of the coating should involve the following steps:

a. Visual Examination. The coating should be carefully examined and a detailed description of its condition recorded. Experience is essential for such examination. The record should be as complete as possible, and every feature of the appearance of the coating should be thoroughly described. It is far better to have too much detail in a record than to run the risk of overlooking some fact which may later prove to be of importance.

b. Photographic Record. The report of the appearance of the coating should be supplemented by detailed photographs illustrating all important points. It is not easy to obtain good photographs of pipe-line coatings, but experience will lead to the development of methods of obtaining pictures which show the condition of the coating far better than any written description.

c. Electrical Resistance. Measurement of the electrical resistance of a pipe-line coating is of great value in determining its condition. By far the best method of making this determination is that which was devised by Dr. Gordon N. Scott for use in the American Petroleum Institute coating tests. The method is simple and rapid, and the results obtained are accurate. In making the measurements it is most important that the procedure developed by Dr. Scott should be followed exactly and in detail, since every step which he described is essential to accurate readings. The details of Dr. Scott's method are contained in his report upon the first inspection of the American Petroleum Institute coating tests.[2] Electrical resistance measurements have been found by Dr. Scott to be applicable to most pipe-line coatings. Dr. Scott's first report covering the use of this method[2] includes the following tentative listing as to the applicability of the electrical resistance tests to the classes of coatings which are included in the American Petroleum Institute tests:

Positive Results—Method Applicable

Coal tar enamels, unwrapped.
Coal tar enamels, unbonded wrap.
Coal tar enamels, bonded wrap.
Asphalt, bonded wrap.
Asphalt mastic.

Relative Results—Method Applicable

Asphalt enamel, alone or with cement mortar coating.
Filled cut-back coal tar.
Grease coating, wrapped.

Method Inapplicable

Cut-back asphalt, aluminum foil wrapping. Dr. Scott makes the following statement as to procedure for applying this method in the field.[2] "As a guide for the practical application of conductance measurements in the field on coatings which have been in service, the following tentative standard of procedure is set up for coatings capable of exhibiting conductances of one micromho per square foot or less. If the conductance of a coating under investigation is less than 10 micromhos per square foot, the coating may be considered to be giving perfect protection. If the coating has a conductance of 10 micromhos per square foot or more, but less than 40 micromhos per square foot, the coating may be described as possibly faulty, but need not be removed for further inspection. If the conductance is greater than 40 micromhos per square foot, the coating should be removed and the pipe inspected for corrosion."

A very interesting method for determining the condition of pipe-line coatings by measuring their electrical resistivity in place in the soil, without uncovering them for inspection, had been recently devised by Mr. R. J. Kuhn.[3] The method has already shown its value in studying the deterioration of coatings, and is undoubtedly worthy of extensive practical application. Its greatest practical utility is in the rapid survey of a coated line, without the necessity for digging bell-holes for inspection, to determine whether or not the coating has broken down to a point where corrosion may proceed. If such a survey shows that considerable break-down has occurred, it is necessary to conduct a detailed inspection, with actual examination of the pipe and measurement of pit depths, to determine the extent of the depreciation.

d. Pattern Test. An exceedingly interesting means of recording the condition of a coating has been devised by Dr. Scott, and named by him the pattern test. By an ingenous combination of electrical and chemical methods Dr. Scott secures a print which shows accurately the location of all punctures in a coating. This method is fully described in the paper cited above.[2] In general it may be said that the pattern test will give highly satisfactory results when applied to unwrapped coatings, but that results are indefinite when it is applied to wrapped coatings. In view of the simplicity of the procedure, however, it should be included in any program of coating inspection.

By a combination of the methods described it is possible to obtain in a short time, and with little trouble, a fairly complete record of the condition of a coating. Selection of the exact methods to be used is, of course, dependent upon the type of the coating, and upon the extent of the information desired. Following inspection of the coating, it should be removed from the pipe and the depth of the pits in the pipe measured by methods which have been described. It should be emphasized, as a final point in a consideration of the inspection of coatings, that pitting of the pipe is the only positive and directly applicable measure of coating deterioration, and that pits should always be measured as a part of every inspection.

Summary

No attempt has been made to outline a definite routine of inspection procedure which is generally applicable to examination of buried pipe-lines. The methods which may be used have been briefly outlined. In any practical case, a definite program incorporating some of these methods should always be laid out with a view to the nature and condition of the line, and to the extent of the information which is to be obtained from the inspection. Inspection by such a systematic method at points regularly located along the line, so as to accurately represent the average condition of all the pipe, is the only means by which the condition of a buried pipe-line can be accurately and economically determined.

[2]Scott. American Petroleum Institute Bulletin No. 208, p. 72.
[3]Kuhn. Oil & Gas Journal, April 21, 1932, p. 47.

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Ventura Well Below 9700 Feet Presents No Real Problem

(*Continued from page* 14)

were employed, and enough was learned to arrive at a satisfactory average temperature at any depth. Ventura Avenue is known as a very cool field, the temperatures at given depths below 5000 feet being much lower than those at corresponding depths at Long Beach and Santa Fe Springs.

An extra drill collar was run with a number of plugs which were tested to melt at given temperatures. A study of this row of plugs after each test gave a fairly accurate temperature reading. Maximum thermometers were also placed in the extra drill collar to check the melting point of the soft plugs. These thermometers were placed in vertical holes drilled in the top of the drill collar and deep enough to permit full use of pin threads in the regular manner.

A formula developed by F. W. Hertel, petroleum engineed for the company at Ventura Avenue, gives the temperatures at any depth as well as any method yet found for the field. It is based on the best averages obtained by various methods and checks back with temperatures recorded in shallower wells. This formula is:

$$53\tfrac{1}{2} + \frac{3d}{200} = t.$$

With d representing the depth and t the temperature, it may be seen that the temperature at 9700 feet would be 199° F. Readings taken at various higher levels showed this formula to have been approximately correct.

The study of temperature has not been given enough consideration in most deep tests. The need for cementing long casing strings, necessity for making straight hole surveys with material which melts at high temperatures, and the general action of mud when hot must be considered when drilling below 8000 feet. Premature setting of cement has been traced to high temperatures, but little trouble of this nature was experienced in Llyod 83.

Lloyd 83 was drilled from top to bottom in the Pliocene sands. The best geological prediction indicates an additional thickness of about 1000 feet of lower Pliocene. The thickest known deposits of Pliocene sands exists in the Ventura valley. The well was completed in the lower portion of the "57" zone, in which the former record producer was finished at 8823 feet. The well started drilling several thousand feet below the top of the Pliocene sands which might have been present here, and shows the extent of this age.

There is every indication that the remainder of the Pliocene will prove productive, and most geologists believe that production will eventually be found in the top of the Miocene below 10,000 feet.

More than 7500 feet of almost continuous oil sand and shale have thus far been developed in the world's thickest known section of the Pliocene series. This is undoubtedly a record thickness of oil bearing and semi-oil bearing formation for any field.

The untested horizons listed downward are, around 1000 feet of basal Pliocene sands which are productive in all major fields in which they are present; some 2000 feet of upper Miocene sands which are very productive in certain Los Angeles basin fields; about 3000 feet of shaly upper Miocene which may yield some oil; about 2000 feet of Miocene horizons which are productive at Kettleman Hills, but which may be too fine-grained here to produce much oil; around 500 feet of coarse Miocene sands which are productive at Elwood; and about 4000 feet of Oligocene rocks which produce oil at South Mountain.

Thus it will be seen that the Ventura field has almost unbelievable deposits which produce at various points in California.

CALIFORNIA FIELDS

2400 Barrel well changes aspects at San Miguelito. Next 40 wells at Kettleman not expected big as first 40.

BRAD MILLS, *Staff Representative, Los Angeles, California*

Big Producer Changes Value of San Miguelito

Ventura, Calif.—Recompletion of Continental Oil Company's Grubb 1, discovery well in the San Miguelito field, with an initial flow of 2400 barrels of 30 gravity oil was one of the most important developments of the week and places a higher value on this newest California district. The well was originally completed at 6750 feet with an initial production of around 600 barrels of oil showing a small percentage of water. The increase in water prompted deepening after the well had produced half enough oil to pay drilling costs.

Such a good flow from a discovery well in a field of this type brands the district as much more promising than ordinarily believed. The well was deepened to 7197 feet, but the hole was plugged to 7145 feet for the production test. Gas production is around 1,500,000 cubic feet, or three times the original gas flow. Both the casing and tubing pressures were greatly increased by deepening.

The San Miguelito field is located about midway between the Ventura Avenue and Rincon fields and is expected to have some of the characteristics of both fields. Chanslor-Canfield Midway Oil Company drilled a well to 10,030 feet in the field, but failed to complete the record well at that depth. The hole was plugged back to around 7800 feet and the well placed on the compressor. This producer is sometimes regarded as the discovery well in the field, but the flow with the compressor was slightly short of commercial for such a depth.

New Kettleman Wells Not Expetced So Big

Coalinga, Calif.—Average initial production of the next 40 completions on the North Dome at Kettleman Hills is not expected to be as high as the average of the 40 wells already producing or shut in, but the field has not been drilled closely enough to prevent successful development for a number of years. Concentration on edge leases has reduced the average initial flow during the past year, but drilling of the better inside tracts will come as more oil is required.

The best producers have been completed on the northwest flank of the North Dome, some of the wells having been given less than an even chance to produce at all. The gradual plunging of the structure toward the northwest makes some of the edge leases in this district look very promising.

Kettleman North Dome Association deepened Armstrong 81-10P to 8551 feet and completed the well with an initial flow of 3000 barrels. This producer is located on the southwest slope of the North Dome, but is well inside the field.

North Kettleman Oil & Gas Company found the Temblor formation at 8011 feet in Lillis-Welch 1, extreme flank test on the northwest edge of the North Dome, and appears to have a chance at commercial production. This well is located more than two miles northwest of Superior Oil Company's Huffman 1, and finding of the Temblor at such a depth places a new value on the intermediate leases.

Once Record Well Now Being Worked Over

Los Angeles.—Working over of E. J. Miley's Athens 6 at Athens-Rosecrans brings to mind the fact that this well was at one time the deepest producer in the world. It was originally completed at 7591 feet and was the marvel of the time about six years ago. An effort is now being made to place the well back on production. A small amount of oil and water was pumped on a recent test, but it will be necessary to lower the tubing for another test.

Drilling and working over of wells has increased in this field, but only a limited amount of field work is expected. Barnsdall Oil Company is deepening Trust 2, which was originally drilled to 5950 feet in 1930.

L. R. Knowlton recently completed a surprise producer after plugging back from 5280 feet and perforating the 6⅝-inch casing at 4350 feet.

Isolated Pier to Be Used In New Rincon Test

Ventura, Calif.—A new type of pier construction will be attempted by Indian Petroleum Company, in an effort to extend the Rincon field, where development has been divided between mainland and ocean drilling. A form of isolated pier will be built, with no connection to the mainland except by boat and barge. This project will save building of some 2000 feet of ocean pier in water deep enough to run the expense sharply upward. The derrick, boilers and all equipment will be located on the pier. The well is located on a direct line with the producing trend and production at this point would extend the field a good distance into the ocean. It is planned to load the oil directly from the well, since tankers may tie up a short distance from the location. The location is less than 1500 feet from an ocean permit which has been developed by General Petroleum Corporation, and geologists believe the company stands a good chance to complete a commercial producer.

General Petroleum Corporation built a long pier more than two years ago to develop a tideland permit, and later allowed an extension to be built on to the original pier. Commercial production was obtained in both wells, but the output was not enough to encourage extensive operations in deep ocean water.

Western Gulf Still Fishing On Deep Test

Santa Maria, Calif.—After recovering the left hand drill pipe lost while fishing for the regular drill pipe above 9000 feet, Western Gulf Oil Company has again lost the fishing string on top of the original lost section and is trying to pull the emergency string from 7858 feet in Bradley 1. This well was drilled to 10,294 feet and established a new American depth record. More hole will be made after the drill pipe is recovered. Progress in this well was uniform and rapid below 9000 feet, and a fishing job was unfortunate. A new record depth for all fields might have been made, had the drill pipe not parted. The well was drilled with standard equipment and with far less publicity than might be expected from such an achievement. Bradley 1 is a wildcat located near the Cat Canyon field and in the Santa Maria district.

Belridge Well Trying For Deeper Production

Bakersfield, Calif.—Ohio Oil Company cleaned out to bottom in Bloemer 1, flank test at North Belridge, and deepened to 6060 feet in search of a good cementing point. A string of nine-inch casing will be cemented at this depth and the well will be drilled to the deep zone recently opened by Belridge Oil Company. Bloemer 1 was a disappointment in the Temblor, but it still stands a chance to produce in the very deep zone which was a success in the first well.

Two or three operators are considering

deep tests in the North Belridge field, but actual drilling will be postponed as long as possible. This field was a sensation in the Temblor formation around 5000 feet, producing a large flow of very light oil. Drilling to 8000 feet in the top of a new horizon or in the extreme base of the Temblor opened a new producing level which points to a large production in the shale below the Temblor.

A few of the leases call for drilling when the price of oil reaches or exceeds 75 cents per barrel. This clause may not be the direct cause of extensive drilling, but it may lead to offsetting which may force a large amount of field work. North Belridge is a narrow field, but has proved very productive on inside leases. There is a possibility that the extremely deep producing zone may underlie a greater area than the shallower sands.

More Deep Tests in Prospect for Lost Hills

Bakersfield, Calif.—Operators at Lost Hills are not satisfied with deep tests in that field, and two or three of the most influential are considering drilling another deep well which should more definitely establish the possibilities of zones below the deepest known producing sand. Lincoln Petroleum Corporation, an operator holding large tracts on the flank of the structure, has been a leader in the movement to make further efforts to develop commercial production below 4000 feet. This company has also secured the promise of aid from some of the larger operators, including one company which drilled one deep well more than a year ago.

Several deep wells were drilled at Lost Hills, but it proved to be one of the most expensive propositions undertaken in the San Joaquin valley. High water pressures, loss of circulation and various mechanical difficulties checked progress in all wells, but two finally passed 5000 feet. Lincoln Drilling Company developed a small amount of oil around 5100 feet, but suspended operations after unsuccessful tests. General Petroleum Corporation stopped drilling at 4150 feet in a deep test which was drilled at great expense.

Lost Hills has been regarded as a good possibility in the Temblor formation, but its relation to the North Belridge and Kettleman Hills fields may not be as close as surface proximity indicates.

Work to Be Continued On 9629 Foot Well

Taft, Calif.—Standard Oil Company of California is satisfied with its failure to develop production in Mascot 1, deep well which held the depth record at 9629 feet for some time, but will do more work on the well around September 1. This Midway test has held more than passing interest for two and one-half years, and the company will not abandon the project before satisfying itself that drilling of so much hole was a mistake. The well was cleaned out to bottom and swabbed, but no oil was in sight. The cores showed some promise, but there was no distinct cut in any of them. The Temblor formation, in which the well may have stopped drilling, should prove an interesting zone in the Midway field. The well was drilled when much glamor was attached to Kettleman Hills, and it was suspicioned that all that was necessary was to drill anywhere to the Temblor to get production. More hole may be made, although the company has not announced its plans. The last thousand feet was drilled with comparative ease, and it would not be a difficult matter to drill considerably deeper.

Little Chance for Basin Wildcatting

Los Angeles.—The Los Angeles basin has slipped sharply in its rating as a wildcatting center, other sections of the state having shown signs of a revival ahead of the southern district. Very few wildcats are now active in the district which holds several of the best fields ever found in the state. The influence of unsuccessful drilling during the better days of the past is still felt, and most companies fail to find any opening for new locations near Los Angeles. Extensions are possible, but such fields as Long Beach and Santa Fe Springs offer little promise in this respect. Drilling midway between fields and on modified "highs" was a favorite practice

California Field Development

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BUTTONWILLOW—		
Milham Exploration Co.'s S. P. L. 14-9, 9-28-23	¶25	2670
S. P. L. 21-17, 17-28-23	*	2712
FRUITVALE—		
Western Gulf Oil Co., Price-Stewart 3, 22-29-27	1000	3910
LONG BEACH—		
R. R. Bush Oil Co., Brenneke 3	400	4796
T. J. Kelly No. 2	150	5983
SAN MIGUELITO—		
Continental Oil Co., Grubb 1, 23-3-24	2200	7197
VENTURA COUNTY—		
Magu Synd.'s Utt 1, 17-1-21	*	5809

New Operations

BELRIDGE—H. J. Bardwell, No. 1, 14-28-20.

FRUITVALE—Cascade Oil Co., Hasson 1, 23-29-27.

PLAYA DEL REY—H. F. Sturdevant, No. 1, 28-2-15.

NORTHERN CALIFORNIA Wildcat Drilling Report

(Wells shut down not included)

KERN COUNTY

BLACKWELL'S CORNER—Fred Fowler's Lincoln 1, 15-26-19, dr shale 3165 ft, will sd.

BUTTONWILLOW—General Pet.'s Morris 2, 6-28-23, lcn. Wilshire Oil Co.'s Nordon 1A, 7-29-24, sd 6990 ft after plugging back to test upper showings.

DEVIL'S DEN—A. S. Halladay's Lincoln 1, 11-25-18, dr shale 200 ft. Pyramid Hills Oil Co.'s Gauthier 1, 24-25-18, trying for water shutoff, td 1725 ft.

McKITTRICK—Welport Oil Co.'s No. 2, 19-29-21, dr shale 600 ft.

SANTA BARBARA COUNTY

CARPENTERIA—Casitas Oil Co.'s Permit 202-2, new lcn for ocean test, will build pier outside mean high tide line.

COAL OIL POINT—Equity Oil and Gas Co.'s Vivian 159-1, dr shale 3465 ft. Bolsa Chica Oil Corp.'s Ferguson 191-1, redrilling 3200 ft.

LOS ALAMOS—Barnsdall's Careaga 1, 31-8-33, plugged to 3227 ft.

ORELLA—Oakburn Oil Co.'s Sperry 169-1, plugged to 2775 ft, will make production test, td 2821 ft.

SANTA MARIA—Western Gulf's Bradley 1, 5-9-33, fsh for drill pipe at 7590 ft, td 10,594 ft; will deepen if pipe is recovered.

SANTA ROSA ISLAND — Standard Oil Co.'s No. 1, dr black shale 2640 ft.

VENTURA COUNTY

CONEJO—American Oil Co.'s Powell 1, 33-2-20, fsh for tools 2030 ft.

HOPPER CANYON — Bardeen Pet. Co.'s Lankershim 2B, 13-4-19, pumping oil and water, td 2757 ft, will clean out and shut off water.

RINCON—Woodrow Pet. Corp.'s Woodrow 1, 4-3-24, dr shale 3950 ft.

SAN MIGUELITO—J. W. Miller's Valenzuela 1, 23-3-24, grading for rig.

SANTA PAULA—E. M. Lesperance's Boosey 1, 31-4-20, rig. J. W. Mosher's Anlauf 1, 22-4-21, co 420 ft, will deepen.

SESPE—Harmon and Deal's No. 1, 33-5-19, dr shale 665 ft. H. A. Ivers' Star 7, 1-4-20, dr shale 535 ft. Merchants Pet. Co.'s Cochran 6, 1-4-20, rig.

SIMI—C. and H. Anderson's Marr 11, 36-3-18, plugged to 1725 ft, will test.

TIMBER CANYON—Superior's West 3, 13-4-21, dr hard sand 2935 ft.

MISCELLANEOUS

KINGS COUNTY—Kettleman Reef Ridge Oil Co.'s Seymour 1, 10-23-16, ur 1050 ft, td 1150 ft. Mid-California Oil Co.'s Avenal 1, 11-23-16, lcn. Knudson and Schmidt's Avenal 1, 36-23-17, m on iron 5000 ft, td 5640 ft. Dudley Dome Oil Co.'s No. 1, 9-23-20, rig. Lacal Natural Gas Co.'s No. 1, 33-22-20, sd 340 ft, will resume. Triune Gas and Land Co.'s No. 1, 5-23-20, dr shale 865 ft.

MERCED COUNTY—Los Banos Pet. Co.'s No. 1, 26-10-9, rig.

MONTEREY COUNTY—Pacific Inland Oil Co.'s No. 1A, 19-23-15, dr shale 2435 ft.

SAN LUIS OBISPO COUNTY—Emerich Oil Co.'s Holland 1, will plug to 1800 ft and make production test, td 840 ft. Kent and McDonald's No. 1, 3-32-22, redrilling 2675 ft. Shell Oil Co.'s Mahoney 1, 4-25-12, rig.

TULARE COUNTY — Sheldon and Gholson's No. 1, 34-22-27, dr shale 775 ft.

YOLO COUNTY — Pacific Northern Gas and Oil Co.'s No. 1, 23-12-3, sd 3050 ft, may not resume operations for some time.

SOUTHERN CALIFORNIA

FULLERTON—Orange Thorpe Corp.'s Skinner 1, 32-3-10, dr shale 4375 ft.

HERMOSA BEACH—Corniel Oil Corp.'s Hermosa 1, 31-3-14, co to bottom at 3155 ft.

NEWHALL—W. T. Ball's Newhall 1, 34-3-16, dr shale 2835 ft. Lone Star Western Co.'s Trumble 1, 6-3-15, co to deepen from 300 ft.

PLAYA DEL REY—Cooperative Development's No. 1, 26-2-15, co 4290 ft.

SAN JUAN CAPISTRANO—Mineral Exploration Co.'s Echenique 1, 8-8-7, dr shale 1650 ft.

WILMINGTON—Walter I. Barcus' Lupie 1, 28-4-13, rig.

SAN BERNARDINO COUNTY—The Great American Pet. Co.'s Gapco 1, lcn; Gapco 2, 18-2-8, lcn; Gapco 3, 18-2-8, lcn.

until the best locations were used. Some of the fields where faults play important parts may be extended, but the average Los Angeles basin field has been difficult to extend, after the accepted maximum producing lines had been established. The extreme west side of the valley, in the general Lawndale - Hermosa - Inglewood - Playa del Rey district, still offers some promise, and most of the future wildcatting probably will be in this section.

Santa Fe Springs Drilling Exaggerated

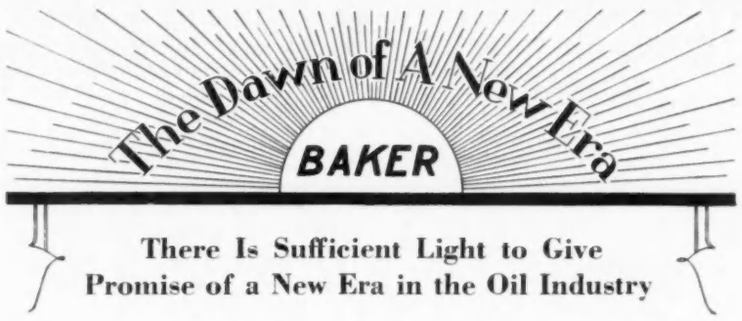
Los Angeles.—Proposed drilling to the Meyer zone at Santa Fe Springs has been exaggerated by reports, but there is a chance that this best of all zones in the field will come in for some additional development. A check of the principal operators fails to show one that intends to do extensive drilling from the surface, but plugging back and working over of wells will be a common practice. The Meyer zone, once regarded as a deep sand, is easily reached and it is known that several operators are sorry because they completed wells in the deep zones when they might have done better in the shallower sand at much less expense.

Intensive drilling appears definitely over at Santa Fe Springs, but there is a chance that some excitement may be generated if the 9000-foot level proves productive. Two or three wells were drilled to this point, but the streaks of oil sand were thin and failed to produce oil in commercial quantities. The cost of drilling to 9000 feet or deeper is now too great to justify the risk.

Another Tideland Test For Carpenteria Area

Santa Barbara, Calif.—Work has been started on the pier for Casitas Oil Company's tideland test southeast of the drilling done some time ago along the coast on the Carpenteria structure. The pier will extend about 500 feet from the high tide line and will be built to test an ocean permit of some promise. Production is expected above 5000 feet.

Many tests have been drilled in the Carpenteria district, but no commercial production has been developed. Continental Oil Company drilled one well which developed a very high gas pressure below 4000 feet, but on a production test the flow was small and no oil was produced. Another well was drilled by this company, but the results were even more disappointing. The Texas Company recently abandoned its Community 1 at 4210 feet. This well was located a short distance from the ocean after drilling several shallow core holes.



There Is Sufficient Light to Give Promise of a New Era in the Oil Industry

New Efficiency Standards Necessary

Continued patronage has given Baker the encouragement to bring out new and *improved* equipment to meet new standards of efficiency, economy and safety.

The increase in investment in the modern wells, and the consequent need for greater protection against failure in landing and cementing casing in a well, justifies your most careful consideration of new efficiency standards found in Baker Cement Guiding, Floating and Cementing Equipment.

Larger Circulating Areas

The new Baker Bakelite Valve Assembly has much larger circulating areas. The fluid passages however, are not so large as to lose the very desirable wash-down effect so essential in many fields.

Tight Seal at Low Pressures and High Pressures, Both

The new rubber valve seat will insure a tight seal with the slightest pressure, while the Bakelite valve seat, immediately above the rubber seat, will withstand the highest possible pressures.

In cementing, this *dependable* back-pressure valve will instantaneously check any tendency of cement that has once passed through, from backing up into the casing. This tight, immediate closure assures the best possible condition for a successful cement job.

Important Features

Besides the foregoing important advantages derived from the use of Baker Cement Floating Equipment you find certain other important features which are equally valuable.

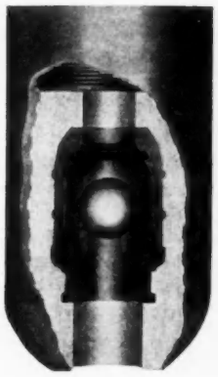
You find that you can easily drill out and circulate away the concrete and Bakelite plugs and valves. This means a distinct saving in time and bit expense.

You find that you can core directly through and below the shoe.

You eliminate any danger to the cement job which vibration in drilling out a metal plug might cause.

You find that further drilling and coring operations are not impeded or endangered, because of objectionable fragments of material in the hole.

Use the Baker Cement Float Shoe, or the Baker Cement Float Collar, or both together, to prevent costly failures in landing and cementing casing in your well.



Cutaway of Baker Cement Float Shoe, showing internal concrete and Bakelite valve construction used in all Baker Cement (Floating) Equipment.

BAKER OIL TOOLS, Inc.

Huntington Park, California

COALINGA HOUSTON TULSA NEW YORK

OKLAHOMA FIELDS

Oklahoma City Disturbed Over Theft Charges. Seminole May Start Drilling After Failure to Agree.

FLOYD SWINDELL, *Staff Representative, Tulsa, Oklahoma*

Oklahoma City Field Up in Air After Oil Theft Charges

Oklahoma City.—Operators in the Oklahoma City pool have been on edge during the past week with oil theft meetings, promises of further disclosures of illegal oil by Lieut Col. Cicero Irving Murray, and the usual problems which go to make the life of an Oklahoma City producer none too pleasant. Citizens of northeastern Oklahoma City are before the planning commission with a petition asking extension of the drilling zone to include 38 blocks of sparsely settled area northeast of the state capitol building. Residents of the exclusive residential section surrounding the capitol building have indicated that they will seek to have their neighborhood also included if the northeast petition is granted although a strenuout effort has been made to prevent such action and one court battle has been fought to prevent drilling of a test almost within a stone's throw of the capitol.

The outstanding performer of the week was Phillips Petroleum Company's Brimm 1, SW NE NW NE, Section 3-11n-3w, which produced 7311 barrels in two hours and twenty-five minutes from Wilcox sand at 6305 to 6477 feet. It was flowing through two four-inch chokes against 150 pounds back pressure. Calculated for 24 hours at this rate it would have a potential of 72,576 barrels, placing it among the larger gushers in the field.

Slick-Urschel Incorporated also scored with Classen-Edwards 17, approximately CNW SE SW, Section 3-11n-3w, which made 4431 barrels in five hours from Wilcox sand at 6372 to 6511 feet and the Classen-Edwards 18, SE SW NE SW, Section 3-11n-3w, on the same lease, which did 3176 barrels in two hours, flowing through a five inch choke against 150 pounds. Production was coming from Wilcox sand logged at 6332 to 6499 feet.

One of the surprises of the week was the showing made by Harrell-Davis, Fish 2, SW NE SE SE, Section 22-11n-3w, which flowed 1622 barrels the first hour and was making gas at the rate of 77,000,000 cubic feet. Production is coming from 95 feet of Wilcox sand topped at 6440 feet and from broken sand at 6535 to 6552 feet, the total depth. The company's east offset, Fish 1, produced only 1550 barrels the first 4½ hours with a penetration of 80 feet.

Indian Territory Illuminating Oil Company's Miller 1, CNE NE NW, Section 35-11n-3w, which defined the southwest limit of Wilcox production in that sector when it found water in that formation, was being cleaned out with 3200 feet of oil in the hole. Production is coming from Prue sand at 6603 to 6615 feet.

Pottawatomie Wildcat Awaiting Connections

Seminole.—Mid-Continent Petroleum Corporation was shut in awaiting connections its Schrader 1, CNW NW NE, Section 6-6n-5e, two miles east of the new Sacred Heart pool in southeastern Pottawatomie County. Operators logged sand from 2831 to 2852 feet and drilled to 2918 feet. The well swabbed and flowed 90 barrels in 24 hours through 30 feet of 6⅝-inch liner set at 2853 feet.

Blackwell Oil and Gas et al have rig up for No. 1, CNW SW NE, Section 14-4n-6e, slightly over a half mile northeast of the town of Ford in the Ada district.

Superior Oil Corporation's Roper 1, CSE SW NW, Section 32-5n-5e, an old well drilled deeper in the Bebee area, pumped 120 barrels of oil and 50 barrels of water on its 24 hour gauge. The well originally was completed July 10, 1930, swabbing 524 barrels from Hunton lime at 2119 to 2254 feet on its initial test. Drilling deeper operators found top of Viola lime at 2413 feet and had water from 2518 to 2524 feet. It was then plugged back and completed at 2508 feet.

Pringle et al have completed digging cellar for No. 1, CSE NE SE, Section 8-7n-8e, in the Wewoka-Holdenville area of western Hughes County.

Although apparently of small commercial importance Phillips and Schock's Fish 1, SW SW SE, Section 25-10n-11e, four miles northeast of the town of Weleetka, is of interest because of finding first Wilcox sand production in the district. Operators swabbed 31 barrels of oil and 18 barrels of water in 38 hours from Wilcox sand at 3911 to 3930 feet. This is an

Central Storage Plan Suggested As Remedy for Oklahoma Thefts

Oklahoma City.—Hearing before the corporation commission on a proposal for a common-above ground storage for the Oklahoma City pool, has been set for September 8, at which time several other important proration matters will be taken up. The proposal came from C. H. Wright, receiver for Sunray Oil Company, who charges that violation of proration orders in the Oklahoma City pool have been such as to cause a virtual breakdown of the corporation commission's authority to enforce regulations.

Under Wright's plan a central storage would receive all oil produced in the field, which he claims would force ratable taking, prevent stealing of oil, and would permit the state to collect gross production tax which it is now losing.

Approached for an opinion in the matter Lieut. Col. Cicero I. Murray said, "I believe the plan is practical. I talked with the governor about it last summer and told him it would solve many problems existing in the field at the time. We turned the matter over to the corporation commission, however, and no further action was taken. The theory is fine and it is only a question of whether it would work a hardship on any operator and whether it would cost too much. With such a pool there would be no possibility of illegal takings. On the other hand there would be no way of separating oils of various gravities on which different prices are paid. The average gravity would determine the price for all oil in the field."

It is evident that the Wright plan would be expensive due to initial cost of storage facilities and to the cost of the huge network of gathering lines which would be necessary to connect all wells. Officials of several companies have expressed the opinion that in theory the plan is all right but that the cost would be prohibitive under present prices for crude oil.

old well originally completed almost ten years ago in sand at 3082 to 3095 feet. Offset wells which were completed at about this same depth probably will not be deepened unless the Fish 1 is better than initial tests indicate.

North Oklahoma Wildcat Drilling Below 4000 Feet

Perry, Okla.—L. H. Wentz and associates were drilling below 4025 feet in their Wolf 1, CSE NW Section 17-20n-2w, interesting community wildcat test located about five miles southwest of the Bu-Vi-Bar pool in southwestern Noble County. Top of the Layton sand was found at 3956 feet and cored from 3959 to 3990 feet, without a showing. The test is southwest of a much folded area which yielded Billings, East Billings, Tonkawa and other pools. Operators are playing a southwest extension of the same trend of folding.

Poor Showing Does Not Dampen Sacred Heart Area

Seminole, Okla.—The relatively poor showing of wells in the Sacred Heart and West Konawa pools apparently has not materially dampened the enthusiasm of some operators as evidenced by the fact that several wells are now drilling and new locations are being made weekly. Magnolia Petroleum Company's School Land 1, CNW NW NE Section 36-6n-4e, several locations southeast of the discovery well in the West Konawa pool and east offset to the company's School Land 16 well, cored sand from 2946 to 2948 feet and had a showing of oil. Operators are now setting eight-inch casing at 2944 feet. The same operators' F. Davis 1, CSE NE NE Section 15-7n-4e, an old well being drilled deeper in the northwestern portion of the St. Louis pool, had Simpson dolomite at 4242 to 4245 feet and was plugged back to 4244 feet. With the plug partly drilled it produced 35 barrels of oil and 12 barrels of water in 24 hours on the swab. Further cleaning out probably will result in drowning out the oil and it may be abandoned.

Hilton Phillips et al had 2000 feet of mud-water and oil standing in the hole in their Moore 1, CSW SW SE Section 21-7n-4e, midway between the St. Louis and Pearson pools in southeastern Pottawatomie County. Eight-inch casing was set at 3420 feet and sand logged from 3490 to 3530 feet. The bit then encountered Hunton lime from 3662 to 3705 feet, the present total depth. This formation apparently is barren and the oil is coming from the sand. The test is now being standardized.

Seminole Drilling May Result From Failure to Extend Agreement

Seminole, Okla.—Failure of operators to effectively extend a no-drilling agreement which has been adhered to since April 27, 1932, may precipitate a drilling campaign in the Calvin sand area of East Earlsboro and West Seminole. Operators of the district met in Tulsa April 27 and agreed to curtail drilling of Calvin sand wells until after June 1. The discovery well in that horizon was shut in under the agreement. Bee Oil & Gas Company made location for its Butler 1, SW SW NE Section 20-9n-6e, during the week ending April 20, 1932. Last week it was reported to have made 200 barrels in four hours from Calvin sand at 2751 to 2788 feet. The report could not be verified because of the fact that operators were withholding information. However, as a result of the drilling and completion of this well and the drilling of a south offset by Sunbeam Oil Company, three new operations were announced during the week and more are likely to start within a short time.

Extent of Calvin sand production in the area is a matter of conjecture but most operators have felt it of such importance or of such potential threat that it should not be developed at this time. When Greater Seminole was being developed showings were found in the upper sands but the mad rush for Wilcox production prevented operators from fully testing to gain definite information on the importance of sands lying above the Hunton lime. Early in November, 1931, Stanolind Oil & Gas Company started plugging back its Jones 2, SW SE NW Section 20-9n-6e, which had been completed in April, 1930, as a small producer from Wilcox sand at 4236 to 4265 feet. Operators plugged back to 2800 feet, ripped the eight-inch casing from 2770 to 2775 feet and had a flow of 1040 barrels in 12 hours cutting 12 to 14 per cent water. In an attempt to cement off water a portion of the new producing horizon was sealed off and it was necessary to whipstock and drill a new hole to the sand. After considerable difficulty the well was completed and shut in without fully gauging. It has remained so under the agreement of April 27. When Sunbeam Oil Company announced location and indicated a lack of willingness to hold off drilling its Campbell 1, NW NW SE Section 20-9n-6e, operators felt that no further general agreement could be reached pending outcome of this test and no attempt was made to actually extend the agreement beyond June 1. The Sunbeam test bridged at 2000 feet after having Calvin sand from 2687 to 2716 feet and the rig is now being skidded for a new hole 100 feet northwest of the old location.

New operations announced during the week were as follows: Stanolind Oil & Gas Company, Jones 3, SE SE NW Section 20-9n-6e, east offset to the discovery well and west offset to Bee Oil & Gas Company's Butler 1; Carter Oil Company, Campbell 7, south offset to Stanolind's Jones 3 and southwest offset to the Butler 1; and Phillips Petroleum Company's Fixico 5, SE SW NW, west offset to the discovery well. Carter Oil Company's Campbell 3, south offset to the discovery well, was recompleted January 5, 1932, prior to the drilling restriction agreement. It was originally completed May 20, 1930, producing 695 barrels on gas lift from upper Wilcox sand at 4171 to 4197 feet. The lower or second Wilcox sand at 4237 to 4245 feet was water bearing and was plugged off. Plugging back operators found Calvin sand at 2695 to 2722 feet and had an initial flow of 1130 barrels cutting two per cent water. The well was reopened August 14 for a flow of 1134 barrels in 21 hours, cutting five per cent b.s. and water. Some of the acreage in the vicinity is in the hands of smaller operators after having been held by major companies during and subsequent to the Seminole boom.

Companies Move to Stop Oil Thefts

Oklahoma City.—Charges by an oil news report that oil in large quantities was being stolen both by independent and major companies in the Oklahoma City pool started many wheels to turning and several important meetings have been held during the past 10 days. The high point of the week was an announcement by Lieut. Col. Cicero I. Murray, that his military forces had uncovered two secret pump stations alleged to be used in running unreported oil from the field. Colonel Murray declined to make any definite statement regarding one pump but said, "Discovery of these pump stations and the shut in of the McArthur wells stopped the last of the big proration leaks. There may be a few barrels of

unreported oil getting by now but there's not much, if any."

According to press reports the stations were concealed behind insulated walls which prevented noise of the pumps from being heard. Each is said to have had several connections leadings to field outlets. Two leases were also equipped with valves which had been bored so as to pass oil when in a closed position and sealed. "I know who was getting the oil now but I can't prove it yet and am not saying," Colonel Murray declared. He stated that the facts developed in the investigation would be turned over to the corporation commission and to the proration attorneys for action within the near future.

The State Wide Proration Committee in its meeting of August 12, gave its unqualified approval to the resolution adopted four days earlier by the Proration Legal Committee and strongly advised that every means be taken to uncover all of the facts with regard to violations of the proration orders. The committee also recommended "that the law firm of Hayes, Richardson, Shartel, Gilliland and Jordan, of Oklahoma City, be immediately retained to handle all matters concerning oil proration in Oklahoma and that they be instructed to proceed at once with a full investigation of all rumors, charges, and counter charges that have been made with regard to violation of the proration orders throughout the State and ascertain all of the facts which may be available."

The Proration Legal Committee, on August 8 adopted a resolution recommending such an investigation and suggesting that the statewide committee employ a law firm to handle such matters. Since that time several meetings have been held to discuss the subject of proration violation, and it is apparent that within the next few weeks the public may have some startling information regarding the true situation in Oklahoma fields, especially in the Oklahoma City area.

Two Small Producers For South Texas Field

San Antonio, Texas.—Two small producers were completed in Escobas field last week. Allied Oil & Gas Company and Allen & Morris' Gutierrez 35, share 4, Fansler partition, Comitas Grant, is making 50 barrels from a total depth of 1476 feet. Shankle & Newton Oil Company's Trevino 18, Block 14, Survey 65, is making 35 barrels from 1270 feet. Several other rigs are running in the field.

Oklahoma Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
CREEK COUNTY—		
Sam Moyen et al, Leader 7, cnl ne ne 3-18-11e	*	2410
Atlantic Oil et al, S. S. Harjo 1, c ne ne se 27-14-10e	692	3272
Shamblin et al, H. Wilson 2-A, ne se ne 21-15-8e	80	2830
Gibson & Metz, C. W. Mandler 1-A, sw ne sw 30-17-7e	*	3238
Gled Oil Co., F. Boyd 3, sw ne nw 29-19-9e	110	2227
HUGHES COUNTY—		
Taylor, Amery 1, c ne ne sw 28-7-8e	*	3287
LINCOLN COUNTY—		
W. M. Mote, School land 1, c nw nw 36-17-5e	*	4037
MUSKOGEE COUNTY—		
Mack Drlg. Co., Barnett 2, cwl sw ne 34-16-15e	¶1	1125
OKFUSKEE COUNTY—		
Wells et al, Ben 4, se ne ne 14-10-11e	20	2029
R. C. Walker, L. Myers 6, cel se ne nw 3-11-11e	*	2670
OKLAHOMA COUNTY—		
Heenan-Coe, McKee 1, nw ne nw 3-11-3w .....4 hrs.	5597	6460
Slick et al, Terminal 7, se se nw 3-11-3w .....1 hr. 15 min.	¶115-1853	6429
Phillips-Sunray, Haddox 1, se sw se 15-11-3w .....1 hr.	¶40-199	6514
Phillips, Gates 1, ne sw ne 22-11-3w .....4 hrs.	¶26-1911	6630
I. T. I. O., Little 3, nw ne ne 27-11-3w .....4 hrs.	¶40-265	6606
OKMULGEE COUNTY—		
Elec. Karam et al, Fields 1-A, nw se se 21-16-14e	15	1779
POTTAWATOMIE COUNTY—		
Mid-Continent, Archer 4, c se se se 14-6-3e	135	3506
Magnolia Pet., School No. 16, 1, c ne ne nw 36-6-4e	75	2994
SEMINOLE COUNTY—		
Ute Oil Co., Combs 1, c sw nw se 18-10-7e	*	3848
STEPHENS COUNTY—		
McAlester et al, Blake 1-A, nw ne sw 16-1s-8w	*	2137
R. W. King, School land 1, ne ne nw 36-1s-9w	*	2029
George Pace, Watkins 1, nw se sw 22-2s-7w	*	1807
George Pace, Watkins-C 1, nw ne sw 22-2s-7w	*	1341
Stogner, Peck 2, nwc sw 1-2s-8w .....8 hrs.	35	1458

New Operations

ATOKA COUNTY—Windham, Redwine 1, c se sw sw 23-1n-14e.

CARTER COUNTY—Wirt Franklin, Mitchell 5, c se ne se, 24-1s-3w. Simpson-Fell, Walker 7, sw sw nw 10-4s-2w.

COAL COUNTY—Dodd & Burton, Grigsby 1-A, c nw se ne 35-1n-8e.

COMANCHE COUNTY—Trowbridge-Chamberlain, Price 1, c sw nw ne 30-2n-9w.

CREEK COUNTY—Hall et al, Fish 1, c sw se sw 10-15-7e. Raymond Oil, Corey 1, swc ne 7-17-8e. Kirchner et al, Johnson 4, ne c sw se 14-7n-9e (owdd). Merritt et al, Pine 3, csl ne ne 27-18-8e. Dixie Drlg., M. Walker 5, c ne sw sw 21-18-9e (owdd). J. E. Abbott, T. E. Mann 1, c nw se sw 26-19-9e. Correction—Johnson O&R, Evans 3, c ne sw nw, 29-19-9e, formerly reported as c se sw nw. W. S. O'Hair, Newton 10, se c ne se 35-17-11e (owdd).

HUGHES COUNTY — Mid-Continent, J. Harjo 1, ne c se 9-7-8e. Mid-Continent, Tiger 2, c sw se ne 9-7-8e. Burke-Greis, Chapman 1, swc nw 10-7-8e. Manahan, T. Narcoma 1, c ne sw sw.

JEFFERSON COUNTY—E. S. Bonner, Burgess 1, ne c se 12-5s-8w.

LINCOLN COUNTY—H. D. Truaz et al, S. S. Wolf 1, (owdd) ne c nw 12-15-6e.

OKFUSKEE COUNTY—R. Walker, Hawkins 3, csl nw ne 3-11-11e. F. Havel et al, Likowski 2-A, se ne sw 23-11-11e.

OKLAHOMA COUNTY — Harold-Davis, Pribyl 1, ne ne sw 22-11-3w. Harold-Davis, Rodesney 1, nw nw se 22-11-3w. I. T. I. O., A. Jarvis 1, sw se nw 26-11-3w. I. T. I. O., Little 4, se c ne 27-11-3w. I. T. I. O. & Phillips, MK&T "B" 3, ne se se 34-12-3w.

OKMULGEE COUNTY—Hendricks, Leffard 1-A, c nw ne 17-13-12e. Mid-Western O&G, 1-A, se c sw ne 5-13-14e.

OSAGE COUNTY—Champlin Ref. 1, ne nw se 24-24-7e. Lewis Prod. 1, nwc sw 27-24-7e. Lewis Prod. et al,1, ne c se 28-24-7e. Galt-Brown 6, se sw ne 15-24-8e. Simons & Stoner Bros. 6, sw ne nw 2-21-8e. Johnson O&R 1, cw¼ sw se 11-21-8e. Mathews et al 1, ne ne nw, 26-21-9e. Johnson O&R, 1, se ne se 11-23-7e. Simons & Stoner et al 4, sw sw se 3-23-8e (owdd).

PONTOTOC COUNTY — Blackwell O&G, Abbott 1, c nw sw ne 14-4n-6e. Superior, Mauldin 6, cse sw nw 32-5n-5e (owdd).

STEPHENS COUNTY—George Pace, McDonnell 1, nw ne nw 28-2s-7w. Ruyle, Dare 1, ne se nw 1-2s-8w.

TULSA COUNTY—Superior Oil et al, Gaskins 1, 60 ft west c se se 9-19-10e.

WAGONER COUNTY — Martin, Drew 3, nwc ne se 26-18-15e.

Wildcat Drilling Report

(Wells shut down not included)

OSAGE COUNTY—Mohawk Oil 1, ne c 10-26-9e, S. 1575-1633 ft; shot 120 qts. swb 15 bbls 1st 24 hrs then exhausted; pumping 100 per cent water.

KAY COUNTY—Blubaugh et al, Indian 1, c nw ne 30-25-1e, sand 2556-63, drilled plugs set ¶5 recementing 5-in.

ELLIS COUNTY—Algers Pet. Co. (formerly L. C. Hivick et al) Roper 1, c se nw, 21-20-24w, rotary rig.

NOBLE COUNTY—Wentz Oil Corp. et al, Wolf 1, c se nw 17-20-2w, T. Tonkawa Limer series 3652 ft shale 3452-3505 ft dr 3807 sandy lime.

BLAINE COUNTY—Watonga Pet., Masters 1, sw nw nw, 27-16-11w, dr 350 ft.

OKLAHOMA COUNTY — Sinclair-Prairie, Kennedy 1, c se nw 4-13-1w, 15-in 302 ft dr 2481 ft.

BECKHAM COUNTY—Pattee Royalty Co., Goose Tree 1, sw se sw se 32-10-23w, dr 475 ft.

WASHITA COUNTY — Burns & Prince, Dock 1, swc, 31-8-18w, sdy sh 2080-90 ft S.O.; td 2160 ft sd.

SEMINOLE COUNTY — Hudspeth et al, Harrod 1, sw ne 3-8-8e, rog. Donley et al, Shepard 1-B, se ne 4-8-8e, td 820 ft repairing rig.

PITTSBURG COUNTY—Tate Oil, Fulton 1, se c 34-7-14e (owdd) old td 2500 ft td 2950 ft sd.

PONTOTOC COUNTY — Blackwell O&G, Abbott 1, nw sw ne 14-4-6e, lcn. Sunray, Grant 1, c se ne 11-4-8e, 8-in 932 ft td 1550 ft ur 5-in.

GRADY COUNTY—English Drlg. Co., Hennan-Coe 1, ne se ne 32-3-7w, cored sand 3255-87 ft td, so&g, moving in pipe.

PONTOTOC COUNTY—Williams, Kroth 1, ne se 33-3-4e, lcn. Edna-Marie Oil, McWhirt 1, ne se 11-2n-6e, Hunton 191, Sylvan 500 ft, td 510 ft ur 5-in.

COAL COUNTY — Fink & Russell, Miller 1-A, se ne 10-2n-8e (owdd) td 2395 ft rng 5-in.

ATOKA COUNTY—Winhan et al, Redwin 1, se sw sw 23-1-14e, dr 135 ft. Hicks et al, Morris 1, ne nw se, 5-1-15e, dr 285 ft. Willis et al, Roland 1, nw ne se 6-1-15e, dr 900 ft. Newman, Bassett 1, c nw 18-1-15e, dr 165 ft.

McCURTAIN COUNTY — Stampfs et al, Harris 1-A, sw nw sw 14-9s-25e, td 2778 ft sd. Prasell et al, Wagnor 1, se ne 5-8s-27e, dr 1009 ft.

MARSHALL COUNTY—J. T. Hogan, Thompson 1, ne nw ne 26-7s-6e, lcn. Hughes, Ayres 1, ne se 30-7s-7e, dr 740 ft.

JEFFERSON COUNTY—E. S. Bonner, Burgess 1, ne se 12-5s-8w, dr 750 ft.

ATOKA COUNTY—Brookshire et al, Guinn 1, nwc 18-3s-10e, Mayes 2160 ft; Sycamore 2292 ft; T. Woodford 2295 ft; dr 2540 ft in Woodford.

STEPHENS COUNTY—Gillette Bros. Cooley 1-A, nw se nw 17-2s-8w, rig.

ATOKA COUNTY—Morris et al, Ray 1, 8-2s-12e, ne nw ne td 610 ft sd.

KANSAS FIELDS

Edge Well Proves Eastern Side at Stratman. Other Areas Active.

FLOYD SWINDELL, *Staff Representative, Tulsa, Oklahoma*

Eastern Limits of Stratman Area Defined

Wichita, Kans.—Skelly Oil Company is plugging to abandon its Melchart 1, CNW NW SW Section 6-17s-9w, apparently defining the east limit of production in the Stratman area in southwestern Ellsworth Country. Top of the siliceous lime was encountered at 3290 feet and a hole full of water from 3295½ to 3298 feet. The hole was plugged back to 3294½ feet and shot with 10 quarts from 3292½ to 3294½ feet. On the swab it produced six barrels of oil and 10 barrels of water in 24 hours. It is two locations east and three north of Robertson et al's Stratman 2, which produced 1970 barrels on its initial test.

Results of completions during the past few months have tended further to prove that almost every location in the area is a wildcat proposition or at least exceptionally hazardous. Early in the year the Central Western Kansas area loomed as a big threat and seemed on the verge of breaking into a real drilling campaign. Failure of many of the tests, located in apparently good positions on structure or trend, to find production of any importance, has had a restricting influence but the principal agency of curtailment of the drill has been the attitude of purchasers to give only a very limited outlet. Shortly after Stanolind Crude Oil Purchasing Company entered the area as a purchaser new locations sprung up at a rapid rate. This purchaser withdrew on May 23, 1932, with an announcement that it was forced to do so because of a general decrease in demand for its crude.

Slick et al's Breford 1, CSW SW NW Section 7-17s-10w, approximately seven miles west of the Melchart test, was shut down to run five-inch casing which will be set at 3370 feet, on top of the siliceous lime. Six-inch casing was set at 3255 feet, 90 feet above top of the conglomerate and the slicieous lime penetrated six feet to a total depth of 3376 feet. At this depth the well made a flow of 108 barrels in 24 hours, production coming from between the six and eight-inch strings. Had operators been able to secure a shut off on the six-inch string it would not have been necessary to run the five-inch.

Carter Oil Company et al's Ploog 1, CSW SE Section 33-18s-9w, discovery well in the Ploog area, pumped 1105 barrels of oil and 105 barrels of water during a recent 24-hour gauge. The well was completed July 21, 1930, and shut in until recently when it was given an outlet for foreign shipment. It had produced only a short time when water appeared.

Shell Petroleum Corporation et al probably will abandon Murphy 1, CNW NE Section 4-19s-9w, directly south of the Ploog well. With siliceous lime penetrated from 3270½ to 3272 feet, operators had 2400 feet of water in the hole. After several days shut down water had risen to 2600 feet and in swabbing a bridge was encountered 2200 feet off bottom. Tools were run into the hole and lost while trying to clean out the bridge. When tools had been recovered swabbing was resumed and in three hours a trace of oil appeared but the fluid column could not be lowered below 2600 feet. One report stated that the hole would be deepened but this seems improbable in view of the water already showing.

Kansas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
CHASE COUNTY—		
Ryan, Lipps 1, c se sw 25-18-6e	*	410
COWLEY COUNTY—		
Ben Gralapp, Weigle 1, se sw nw 9-32-4e	*	3500
Dickey Oil Company, Tibbitts 1, ne nw ne 27-32-4e	120	2376
Murphy et al, Reservoir 1, nw nw ne 27-32-4e	140	2415
Swedish-American, Sandstrom 3, swc nw 24-33-6e	*	1940
GREENWOOD COUNTY—		
Simmons & Amerada, Ellis 10, se sw sw 26-23-11e	*	1935
McPHERSON COUNTY—		
Simmons et al, Krehbiel 1, se c nw 33-18-1w	*	3497
Smith et al, Hamilton 1, c nw nw sw 28-19-1w	lcn.	abn
Standard Oil of Kansas, West 1, c nw se se 3-20-3w	lcn.	abn
Olson Oil, Sabin 2, c se sw 13-23-4w	lcn.	abn
MORRIS COUNTY—		
Allender 1, c nw ne 16-17-7e	*	310
RENO COUNTY—		
Olson Oil, Rudicel 1, c sw sw 24-23-4w	720	3374
RICE COUNTY—		
Rodgers et al, Reinet 3, ne nw se 3-21-6w	30	3390

New Operations

COWLEY COUNTY—Sidwell et al, Countyman 2, ne c nw 4-33-7e (twin).

DOUGLAS COUNTY—Colby et al, Fitherson 1, c se 27-14-18e.

GREENWOOD COUNTY—Landon, Smith 3, sw nw nw 8-24-12e, formerly reported nw nw nw.

HARVEY COUNTY—McBride, Inc., Friesen 2, (twin) nw c sw 20-22-8w.

LEAVENWORTH COUNTY—West et al, Corf 1, c nw ne 32-10-21e.

McPHERSON COUNTY—United Pet. et al, Smith 2-B, c ne ne nw 29-19-1w. Wolf Creek Oil, Krehbiel 3, c nw nw nw 25-19-2w. Youker, Eaton 3, c ne ne ne 26-19-2w. Lario O&G, Lacquement 2, c sw sw ne 6-20-1w. Shawver et al, Decker 2, c nw ne ne 2-20-2w.

SEDGWICK COUNTY—Shell Pet., Brown 3, (owdd), ne se sw 15-26-2e.

WOODSON COUNTY—Theta Oil, Schaffer 8, nw sw se 31-23-14e.

Wildcat Drilling Report

(Wells shut down not included)

SUMNER COUNTY—Austin et al, Foy 1, sw se se 14-34-1w, dr 950 ft.

HASKELL COUNTY—Victor Martin et al, Weeks 1, c nw 8-28-31w, rig.

SEDGWICK COUNTY—Cameron and Great Basin, Landson 1, c se nw 13-28-2e, 10-in 1480 ft td 2010 sd.

PRATT COUNTY—Ninnescah O&G, Hardesty 1, sw se se 28-27-11w, td 2000 ft sd.

SEDGWICK COUNTY—Scroggins et al, Bartlett 1, nw se nw nw 35-27-1e, td 700 ft sd.

BUTLER COUNTY—Ramsey et al, Michael 1, sw nw nw 18-27-3e, td 1985 ft sd.

FORD COUNTY—Swain et al, Henthorn 1, c nw 21-25-24w, td 5205 ft sd.

EDWARDS COUNTY—Mid-Kansas, Converse 1, sw ne ne 30-24-18w, hfw 4105-15 ft, 4210-20 ft hfw; 8 inch at 4219 ft; dr 4232 ft.

HARVEY COUNTY—Liggett et al, Davis 1, sw se ne 7-24-1e, T. chat 3050-78 ft hfw, td 3127 ft sd.

FINNEY COUNTY—National Refg. Co., Wells 1, swc 13-23-30w, Base Big L. 5300 ft dr 5545 ft.

HARVEY COUNTY—Herndon, et al, Santa Fe 1, nw sw 1923-1e, dr 240 ft.

RUSH COUNTY—Barnsdall et al, Schultz 1, swc, 3-19-16w, dr 425 ft.

BARTON COUNTY—Skelton Oil, Ott 1, c se se 16-19-14w, Sil. L. 3530 ft td 3604 ft sd.

McPHERSON COUNTY—Snyder et al, Carlson 1, se c 4-19-3w, 15-in 1530 ft td and sd.

BARTON COUNTY—Smith, Ash et al, Wilson 1, c nw sw 13-18-14w, ru.

RICE COUNTY—Slick et al, Orth 1, se se ne 27-18-10w, T. sil. 3236 ft; 3241-43 ft hfo; pumped 815 barrels oil 10 hrs comp.

McPHERSON COUNTY—Simmons-Canary, Krehbiel 1, se nw 33-18-1w, 2900-07 hfw; base L. 3116 ft, 6-in 3381 ft; Viola 3383 ft Wx 3431 ft; 3448-51 ft hfw; sil L 3489-97 ft D&A.

CHASE COUNTY—Ryan et al, Lipps 1, c se sw 25-18-6e, td 625 ft D&A.

ELLSWORTH COUNTY—Slick et al, Dreford 1, sw nw 7-17-10w, oil 3140-50 ft flowed 270 bbls 24 hrs; swb 5 bbls per hr at 3155 ft, increase 3167 and 3215 ft dr 3212 ft. Leo Morgan et al, Andrews 1, ne sw 3-17-8w, spd and sd.

McPHERSON COUNTY—Sidwell et al, Nichols 1, ne nw nw 28-17-1w, 15-in 580 ft dr 1205 ft.

ELLSWORTH COUNTY—Raymond Gear et al, Sauberli 1, c sw se 29-16-9w, 10-in 1964 ft dr 2275 ft. Phillips, Hochman 1, ne nw se 17-16-7w, bldg rig. Gurley Bros. & Barnsdall, Union Pacific 1, nw sw 7-14-7w, ru. Walker Oil, Remley 1, sw se ne 23-14-7w, 10-in 3188 ft dr 2223 ft.

DOUGLAS COUNTY—Pure Oil, Lemb 1, nw se, 31-14-19e, dr 400 ft.

SALINE COUNTY—Twin Mounds, Weis 1, cw½ ne nw 20-13-4w (owdd) base Big L. 3401 ft td 3511 ft sd.

GRAHAM COUNTY—Schleimeyer et al, Smith 1, se c 24-8-25w, ru and sd.

EAST CENTRAL TEXAS

Tests Drilling Throughout East Central Belt Expected to Show Results Soon.

H. H. KING, *Staff Representative, Fort Worth, Texas*

Woodbine Sand Belt Undergoing Extensive Wildcatting Program

Tyler, Texas. — Wildcat exploration work throughout the Woodbine sand belt in East Central Texas is rapidly reaching a volume that should yield results before the lapse of many months. A restricted amount of drilling on wildcat blocks has been under way since the discovery of the East Texas oil field in October, 1930, but many of the leased blocks that are supported by favorable geology have been held back for a more opportune time to determine their worth. Interest in these wildcat projects has been revived since the definite passing in recent weeks of the aggressive drilling in the East Texas field. A surplus of drilling machinery in the latter field is a factor in boosting the volume of wildcat drilling, as many owners of idle rigs are eager to share in exploring a block having merit for an interest and some cash. A similar trend towards wildcat activity followed the passing of the peak on drilling in the Mexia, Corsicana-Powell, Wortham and other old Woodbine sand areas.

Drilling Obligations

A sizeable quota of newly assembled wildcat blocks carrying prompt development obligations are being reported each week, and new locations added weekly to the drilling report confirm this growth in activity. Prices on leases and royalty interests have not been greatly inflated, as companies and individuals which normally provide the financial backbone for wildcatting are limiting their outlays. The general attitude is to buy protection against the most likely tests, and play a waiting game with the others. Companies and operators that are opposed to the launching of an intensive wildcat program while the flush production lingers on in the East Texas field are reluctant to contribute directly or indirectly to this unwanted drilling, but usually break over when properly tempted.

Among the first of the new crop of wildcats to reach a critical depth is that of W. B. Chandler-Wm. C. McGlothlin and B. P. Williamson on the Mrs. A. Walker tract, J. B. Bowerman Survey, Hunt County. This test failed to yield oil or gas when given a series of drill stem tests in Woodbine sand at 2847-2872 feet late last week. It is to be deepened to the lower section of the sand.

Popular Section

Kaufman County, a popular section with major and independent wildcatters in fault line plays of previous years, is to share in the revival of wildcat drilling through a Woodbine sand test having been contracted for by Maurice Grubb and Geo. Anderson of Dallas. These operators have assembled a block of about 4000 acres, centering about three miles north of the town of Elmo in the northeast portion of the county, agreeing to start drilling by September 10, or pay 50 cents per acre penalty to land owners contributing the acreage. The drilling obligation calls for a 3500-foot test, or to the lower section of the Woodbine sand series. A structure on a well defined fault is the basis of this project, as numerous dry holes in the area provide ample subsurface control.

Continuing north along the fault zone from the Kaufman County project, the Mico Oil Company proposes to drill a Woodbine sand test on a block of about 5000 acres, centering about three miles east of Greenville, Hunt County. Delivery of leases is contingent upon drilling operations being started by December 1, 1932.

The southern end of the Woodbine belt along the fault zone is promised a wildcat test in Freestone County on a block of about 4000 acres assembled by Stewart-Watson et al of Fairfield, Texas. This block centers about five miles southeast of Streetman. A bonus of 25 cents per acre and agreement to start drilling by December 1 was required. W. A. Reiter, Mexia geologist, who shared in discovery honors at Mexia and other fault line fields in the district, is reported to be interested in this proposed test, which is believed to be predicated on the show of oil developed in Woodbine sand at 3630-53 feet in July, 1931, by the E. L. Smith Oil Company's wildcat on the Emily Jackson 300-acre tract, Wyley Carter Survey, but proved to be a failure after deepening to 3686 feet. The new drilling block lies south and west of this failure. In the same area, The Texas Company is credited with having lately leased about 3000 acres scattered between the J. P. Anderson and J. S. Moss surveys on 10-year commercial lease forms. Humble Oil & Refining Company, Gene Germany and Tom E. Cranfill, and Shell Petroleum Corporation are also credited with having acquired lease protection. The prevailing price is 50 cents per acre bonus, and 50 cents per acre annual rental.

Two more wildcats for the shoreline area, scene of the East Texas oil field, as result of recent acreage deals. John Keegans and others launched drilling August 10 in southwestern Rusk County and south of the above field on a block of about 1500 acres, centering some 3¼ miles southwest of Laneville. The location is on the R. L. Needham tract, J. H. Chambers Survey, and is contracted to go to 4000 feet. Several wildcats are proposed on blocks to the west of the above test. In the Jamestown area, located due north of the East Texas field in eastern Upshur County, H. C. McMurphy of Shreveport and others are credited with having acquired the north 50 acres of the E. A. Cobb 168-acre tract, John Lout Survey, for $500 per acre, payable out of one-fourth of the first production. The consideration also requires a test to the Woodbine to be started promptly. This test is about two miles north of production, and presumably on a separate structure.

Deepening Test

Deepening of the Talko Petroleum Corporation's wildcat on the C. S. Ross 86-acre lease, F. L. Smith Survey, Wood County, from its present depth of 3500 feet to 4100 feet, is called for in a deal reported to have been closed lately. J. T. Miller et al are credited with having paid $1500 for the test and about 950 acres of nearby leases, assuming the obligation to deepen the hole. It will be carried to the Woodbine.

Materials are en route for the starting of the deep test reported last week as having been authorized by Shell Petroleum Corporation on a core drilled structure in Leon County and between Centerville and Buffalo. Penn Oil Company, a joint owner in the block, will drill the hole, which will be located on the Wm. Phillips 160-acre tract, S. A. Swayze Survey.

No change is reported in the status of Franco Oil Company (McGee-Mills

and Harper's) wildcat test in western Franklin County on the L. S. Harper 118-acre tract, W. N. Dawson Survey, although lease buying in the general area continues. Harper 1 is credited with having recovered evidence of oil and gas as result of coring near the 3285-foot level several months ago, then lost junk in the hole. It has been necessary to ream the hole to recover the junk. In the meantime the financial backers of the project have expended considerable cash in strengthening the lease protection of the group. Regardless of the outcome of this test there will be several more drilling along the fault it has helped to locate with the aid of previous dry holes. Dilworth Hager and others are credited with having lately acquired leases on about 4000 acres, paying from $1 to $2 per acre, and included the J. K. Pierce tract, Jas. A. Craft Survey, Hopkins County, bearing the old dry hole drilled to the top section of the Woodbine by Gulf Production Company. Correlation of the log of Pierce 1, the Franklin County test now under way and other tests has confirmed a pronounced faulted condition in the area. It is contended in some circles that Pierce 1 was not a decisive test through having failed to penetrate the lower section of the Woodbine.

Humble Oil & Refining Company is credited with having paid rentals on its large block of leases in southern Gregg County and due east of the East Texas oil field with a view of holding as protection against Trinity sand development later. The acreage is considered condemned for Woodbine production.

The lower series of the Trinity sand horizon is credited with having yielded an oil saturated core in J. M. Burnham-Pat Marr et al's wildcat on the F. O. Weiss tract, J. Dean Survey, Bowie County, at 3717-3723 feet. This test is near the center of a 10,000-acre block assembled by J. B. Greer and C. W. Robinson, Shreveport operators, and arrangements were made for Burnham et al to drill same. A drill stem test has been delayed pending perfection of titles on a portion of the block. Sufficient oil saturation is carried by the reddish sand credited with having been pulled from the bottom of this hole to produce, according to qualified observers. A large crowd will be on hand to witness the testing of the sand. Bowie County occupies the northeast corner of the state.

More Cooperation for Unconnected Wells

Dallas, Texas, August 19.—More cooperation than usual was given by purchasers and pipe line companies serving the East Texas oil field in providing relief for unconnected wells at a meeting held here today according to Jack Pew, chairman of the connection committee. Pew stated that all companies represented at the meeting contributed help toward taking care of the idle producers.

An unusual amount of swapping of connections took place to eliminate unnecessary pipe line constructions and because of this exchange the total number of wells taken care of at the meeting was not made available.

Trucks to Handle East Texas Swabbing Lines

Tyler, Texas.—Three heavy duty trucks equipped with winches for the operation of 4000-foot swabbing lines are to be put in service in the East Texas oil field by The Texas Company for re-conditioning wells prior to the arrival of the permanent pumping stage. It is reported that these units will be used in removing paraffin from tubing and casing, and especially to agitate light producers that fall short in making their daily proration allowable. There are a number of wells in the field that require occasional agitation, or a "kick-off" so as to prolong the natural flow.

Candidates Favor Present East Texas Proration

Tyler, Texas.—Sponsorers of a change in the prevailing proration plan of the Texas Railroad Commission virtu the incentive to continue unnecessary drilling on small sites were given a set back August 17 when two members of the Texas Railroad Commission virtually committed themselves to maintaining the present well allowable. C. V. Terrell, chairman, was quoted as having stated in response to an inquiry that "While I do not want to prejudice any hearing or decision of the Commission, yet I do not believe that the policy we have adopted and worked under so long should now be changed." Terrell is a candidate for re-election.

Earnest O. Thompson, appointive member of the Commission, who is now seeking a return to office on a four-year term, was widely quoted in the press in a similar statement made here in a political speech August 17.

These two commissioners constitute a majority, and if they adhere to their pre-election views the chances are considered rather doubtful of a proposed acreage-well allowable plan being applied to the field. Operators and companies concentrating on small drilling sites, which are made available through the sub-dividing of both small and large leases, can be expected to continue a fairly large volume of new drilling as long as flowing production is available, as such completions earn as much production as a completion in the center of a large lease under the well allowable plan.

Pipe Line Uses 700 Men On Short Line

Fort Worth, Texas.—Somewhat of a record for labor turnover in pipe line construction has been purposely attained by the Illinois Pipe Line Company in changing the route of 6¼ miles of its six-inch trunk line upon entering Fort Worth. Approximately 700 laborers have been given employment on this project with a view of easing the local labor situation. Except for experienced welders and the use of air compressors for breaking through rock beds the work was performed by manual labor, according to H. D. McCracken, vice-president and superintendent. Local welfare organizations and the U. S. Labor Bureau furnished most of the men, who were accepted for a week's work regardless of age. Selections were partial to workmen with dependents, and it is estimated that 400 separate families enjoyed an income from this project. The company paid a flat scale of 40 cents per hour for the unskilled labor.

Proration Violation Expected to Show Decline in East Texas Pressure

(*Continued from page 9*)

and 49 additional operations listed. Included in the latter group is six tests waiting for cement to set; nine drilling; 28 derricks and rigs; and six locations. All of this activity is concentrated on the south end, centering on Rusk, Smith and Cherokee Counties. The new work is confined to the matching of offsets, and to comply with demands of royalty owners in regard to drilling up large leases held by the company. Mid-Kansas Oil & Gas Company's M. M. Cross 15, located in southwest part of the Cadena Survey, drilled sand at 3614-19 feet, and moved off rotary to complete with portable outfit. The well failed to respond with a natural flow, thereby requiring the restoration of rotary to deepen.

First East Texas Oil Theft Suit Up Soon

Longview, Texas.—After an elapse of nearly six months since the first indictment of operators in the East Texas oil field for alleged theft of oil from royalty interests a case has been set for trial on September 6 at Marshall, Texas. It is understood that the first case to be considered will be the group charged with stealing oil in the Gladewater section of the field. The defendants succeeded in obtaining a change of venue from the county seat of Gregg County at Longview to Marshall, and are now endeavoring to secure a postponement of the scheduled trial.

Central East Texas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
JOINER AREA—		
Amalgamated Oil Co., S. S. Cook (35-ac) 5	9600	3715
American Liberty Oil Co., C. Young (63-ac) 4	7000	3710
British American Oil Prod Co., Kangerga 7	8200	3653
M. L. Thompson (64-ac) 3	7200	3633
Cameron Oil Co., W. D. Tucker (2-ac) 1	*	3813
Lee Davis & Hoffman, A. Kelly (21-ac) 1	3000	3681
Deep Rock Oil Co. & Amerada, Stovall 11	3000	3673
Everts Drl. Co., (was C. K. West), J. Cole (10-ac) 3	2500	3705
John W. Hooser (W. H. Whisenant, Rec.), G. W. Eaton (16.8-ac) 3-B	3000	3744
H. H. Howell et al, Gus Johnson (31.84-ac) 1	7200	3835
Humble O&R Co., J. E. Arnold (43-ac) 2	8000	3750
A. B. Blackwell (83-ac) 5-B	9000	3649
C. W. Wilson (96-ac) 4	6500	3644
Lucey Pet. Co. & F. W. Roe, B. F. Maxwell (22-ac) 1-B	6000	3725
Magnolia Pet. Co., J. W. Flanagan (36.67-ac) 4	11,000	3637
Mid-Kansas O&G Co., H. C. & G. W. Burton (148.8-ac) 7	7200	3665
M. M. Cross (814-ac) 20	2500	3659
M. M. Cross (814-ac) 23	8000	3635
M. M. Cross (814-ac) 24	8500	3633
W. T. Grissom (842-ac) 22	7500	3641
W. T. Grissom (842-ac) 23	9000	3643
D. Ledbetter (212-ac) 4	3500	3629
J. F. Mason (116-ac) 9	6500	3673
R. G. Mason (104-ac) 6	6000	3712
T. O. Warren (60-ac) 3	7500	3675
Pansy Oil Co., S. A. Glover (16.16-ac) 2	1500	3693
Rayborn & Glasscock, A. Kelly 1	*	3711
Sinclair Prairie Oil Co., A. S. Jarvis (266-ac) 19-A	1000	3704
W. D. Kinney (579-ac) 34	10,500	3680
W. D. Kinney (579-ac) 35	10,000	3680
W. D. Kinney (579-ac) 36	9500	3680
J. B. "Bunch" Wilson (65-ac) 7	6000	3734
Stanolind O&G Co.-Pure Oil Co., W. H. Siler (949.6-ac) 14	7000	3632
Sun Oil Co., Schuyler & Schuyler (42-ac) 3-A	5500	3666
The Texas Co., J. W. Wilson (134-ac) 7	4500	3667
Ward Oil Corp., F. J. Cox (20-ac) 2	500	3697
Willard Oil Corp., John Alford (21-ac) 3	2000	3650
KILGORE AREA—		
Arkansas Fuel Oil Co., C. Brown (100-ac) 6	8500	3586
M. B. Hughey-Ross (220-ac) 5	7500	3550
J. M. Burnham & Johnston, S. Dansby-Tidal (56-ac) 1	4200	3729
Empire Gas & Fuel Co., E. L. Walker (160-ac) 4	6200	3667
Galvez Oil Corp., M. L. Strong (53-ac) 1	11,000	3735
Gulf Prod. Co., H. C. Alexander (209-ac) 14	8400	3557
S. G. Andrews (75-ac) 1	9600	3594
S. Hilburn (273-ac) 31-E	9000	3604
M. B. Hughey (50-ac) 4	10,000	3539
E. L. Walker (49-ac) 5	8200	3550
C. G. Hendershot et al, L. Washington (12-ac) 1	*	2400
M. E. Hodges et al, G. E. Martin 1	7200	3583
Humble O&R Co., Tom Barton (50-ac) 2	4500	3744
Hunter & Rowe, J. B. Watson (10-ac) 2	9000	3637
Jones-Doss Oil Co., L. Martin (47-ac) 4	2000	3726
Joe Kelly et al, Brock 2	7000	3668
Frank King et al, J. H. Scoggins-Republic (50-ac) 2	3000	3655
Bert Kouns et al, Hughey-Ross (10-ac) 2	5500	3562
Louisiana Oil Ref. Cor., W. C. Griffin (71-ac) 6	9600	3551
Mazda Oil Corp., L. Butts-Shell (40-ac) 4	7200	3654
Mead Oil Co., I&GN Ry. fee (7½-ac) 2	7500	3604
John R. Murphy et al, W. P. Crews (2½-ac) 1	8000	3739
Navarro Oil Co., R. N. Brightwell (113-ac) 7	7200	3669
Patterson Drl. Co., M. Brock (9-ac) 2	4500	3652
Albert Plummer et al, J. R. Beall (79-ac) 3	3000	3669
Producers Investment Corp., W. N. Crim (4-ac) 2	3500	3597
Red Star Oil Co., L. Smith (1.51-ac) 2	4500	3570
Refugio Oil Corp., M. B. Hughey (18.35-ac) 2	10,500	3560
Republic Prod. Co.-Louis Hart, Bean (8.69-ac) 2	8000	3604
Frank Russell Pet. Corp., C. C. Crews-Continental (35-ac) 2	3000	3596
Salmon Oil Co., Smith (10-ac) 2	4500	3610
Shell Pet. Corp., B. F. Laird (54-ac) 3-B	9600	3614
Rosa Russell (126-ac) 10	9500	3739
Sinclair Prairie Oil Co., A. A. King (337-ac) 20-B, Tract 1	8000	3462
A. A. King (147-ac) 9-B, Tract 5	8600	3457
A. A. King (147-ac) 10-B, Tract 5	6500	3460
A. A. Lockhart (127-ac) 10	6000	3665
Stanolind O&G Co., C. O. Christian (53-ac) 3	6400	3645
Stanolind-Simms Oil Co., E. L. Walker (51-ac) 4-B	8000	3558
Sun Oil Co., C. H. Hilburn-Loyd (133.7-ac) 13	9600	3651
The Texas Co., J. W. Radford (50-ac) 2	4500	3674
Tidal Oil Co., W. P. Moore (135-ac) 8	3500	3679
J. S. Elder 1	150	3597
Welch & Sandler, R. W. Barnett-Tidal (107-ac) 7	3500	3729
Wellington Oil Co., Thompson 2	12,000	3690
LONGVIEW AREA—		
Arkansas Fuel Oil Co., J. D. Davis (30-ac) 1	7000	3594
F. K. Lathrop (101-ac) 6-C	15,000	3606
J. A. Whittaker (75-ac) 6	8000	3545
Atlantic Oil Prod. Co., Ethel Burnside (204-ac) 14-A	10,000	3546
J. C. Judge (520-ac) 12	11,000	3522
Atlantic & Sun Oil Co., M. Hays (448-ac) 22	10,500	3529
Barnsdall Oil Co., R. E. L. Ferguson (37-ac) 5	12,000	3676
Brown Eagle Oil Co., T&P Ry. Fee 2	10,000	3630
Corbin & Cupp, J. H. Alexander (50-ac) 1	*	3601
Dyke Oil Co., J. M. Christian (37-ac) 5	8500	3597
Empire Gas & Fuel Co., Joe Bander (93-ac) 6	9600	3630
Feazel & W. E. Mack et al, R. S. McKinley-Amerada (37-ac) 1	*	3612
Galvez Oil Corp., Mrs. G. Moore (51-ac) 4	10,000	3695
Gulf Prod. Co., J. C. Judge (518-ac) 20	9000	3531
E. C. Hankamer & Cochran, C. L. Taylor (2½-ac) 1	8500	3582
Humble O&R Co., W. R. Hughes (185-ac) 11	7000	3637
W. C. Mackey (198-ac) 1	1500	3591
Lucey Pet. Co., A. M. Kinsell (47-ac) 4	9000	3646
Magnolia Pet. Co., Lanie Graves (23-ac) 3	7200	3621
Rone Oil Co., Anderson-Slaughter (5-ac) 2	8500	3531
Sells Petroleum, Inc., R. Fisher (63-ac) 4	10,000	3635*
Shell Pet. Corp., W. T. Burnside (160-ac) 9	11,000	3545
W. T. Burnside (160-ac) 10	8000	3548
A. N. & V. King (160-ac) 4	9000	3585
Sinclair Prairie Oil Co., J. W. Akin (100-ac) 7-B	8500	3524
M. Moncrief (252-ac) 23	9000	3580
Stanolind O&G Co.-Simms Oil Co., Flewellen (374-ac) 16-B	2000	3758
Flewellen (374-ac) 17-B	7000	3680
Stanolind-Simms-Peach Blossom Oil Co., J. W. Akin (80-ac) 4	14,000	3624
Sun Oil Co., J. M. Haynes (202-ac) 11	10,000	3655
Swain & Holcomb, R. M. Wood 1	7500	3632
Tidal Oil Co., Lake Devernia (270-ac) 13	15,000	3540
Washington Oil Corp., Wm. Cobb (33-ac) 4	12,000	3577
Douglas Williams et al C. L. Taylor (6-ac) 1	10,000	3617

ABBREVIATIONS

NOTE—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls.—barrels; b.s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in.—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—underreaming; wo—workover; woc—wating for cement to set; wosr—waiting on standard rig.

East Texas Border Counties

Completions

Company, Well and Location	Initial Production Bbls.	Depth
LAMAR COUNTY—		
Doyle & Jondreau, Joe Horn 1	*	2958
RAINS COUNTY—		
Lone Star Synd. (C. H. Bayless), J. S. Ownby 1	*	4986

Wildcat Drilling Report

(Wells shut down not included)

ANDERSON COUNTY—Jack W. Frazier et al's H. L. Hudson (198-ac) 1, M. Rionda sur, dk. W. H. "Bill" Roeser et al's M. A. Davey 1, P. G. Adams sur, dk.

BOWIE COUNTY—Roy E. Anderson et al's A. Y. Breckenridge 1, M. Dykes sur, elev 352 ft, top Nacatosh sand 775 ft, top Pecan chalk 1180 ft, sd 1250 ft. Joe M. Burnham-C. W. Robinson & John Greer's F. O. Weiss (949-ac) 1, J. Dean sur, elev 388 ft, anhydrite 2945-3030 ft, testing show oil in lower Trinity sand 3717-27 ft. W. S. Langford et al's W. W. Whybark (100-ac) 1, J. H. Dyer sur, dr shale 2165 ft.

CASS COUNTY—Lapan-Lovejoy et al's S. A. Orr (320-ac) 1, G. W. Morris sur, materials.

CHEROKEE COUNTY—Bridges-Chandler et al's Berryman (300-ac) 1, H. Kimble-Dill sur, sd 1550 ft. Barclay-Taite & Deason's A. T. O'Neal (131-ac) 1, J. M. Procella sur, dk. W. N. Hamilton et al's Dr. P. E. Jones 1, J. D. Hamilton sur, materials. Pure Oil Co.'s W. P. Nicholson (72-ac) 1, R. Stewart sur, lcn. Wm. A. Stone et al's Mrs. J. I. Perkins (200-ac) 1, Thos. Stanford sur, sd 2225 ft. Wilson-

Stubbs Oil Corp.'s M. F. Ragsdale (53-ac) 1, J. P. Wolfin sur, sd 3100 ft.

DELTA COUNTY—C. M. Joiner Pet. Corp. et al's J. A. Blackwell 1, H. Dunnetella sur, Woodbine sand 1935-1950 ft, top Georgetown lime 2030 ft, top Comanchean 2913 ft, dr 3075 ft. J. O. Wheeler-Neuville & Yarbo's Ablovich 1, E. Chick sur, elev 507 ft, Austin chalk 1885-95 ft, co 3733 ft.

ELLIS COUNTY — Paris Oil Co.'s O. S. Bain (60-ac) 1, R. M. Williamson sur, lcn. Carl Brooks et al's Anderson 1, E. C. Branch sur, dr 590 ft.

FRANKLIN COUNTY—Franco Oil Co. (J. F. Mills, L. S. Harper & A. P. McGee's) L. S. Harper (118-ac) 1, W. N. Dawson sur ,elev 356 ft, top Pecan chalk 1320 ft, fsh 3285 ft.

FREESTONE COUNTY—Clyde Creighton & Co.'s W. A. Holley (80-ac) 1, A. B. & M. sur, dr 1070 ft.

HENDERSON COUNTY—B. L. Green et al (was J. M. Rogers') M. H. Gossett (103-ac) 1, L. D. Stover sur A-87, elev 341 ft, top Taylor 1450 ft, top Austin chalk 2347 ft, sd for cas on cap rock 3147 ft. H. H. Myers et al's M. E. Olson (80-ac) 1, Geo. Wilson sur, elev 512 ft, sd 250 ft.

HILL COUNTY—T. J. Spikes et al's M. H. Davis (55-ac) 1, J. R. Alexander sur, lcn.

HOPKINS COUNTY — Harmony Oil Co. (J. F. Roark's) J. L. Taylor (88-ac) 1, John Polk sur, sd 540 ft. Columbia O&G Co.'s McLeon (70-ac) 1, East D. Holbrook sur, rig.

HUNT COUNTY—W. B. Chandler, B. P. Williamson & Wm. C. McGlothlin's Mrs. A. Walker (2½-ac) 1, J. B. Bowerman sur, elev 541 ft, top Nacatoch 990 ft, Austin chalk 1790-2190 ft, tested Woodbine sand at 2847-2872 ft but four drill stem tests failed.

KAUFMAN COUNTY—Stanley Darrill et al's Pannill (649-ac) 1, A. Cherino sur, sd 2375 ft.

LAMAR COUNTY—Doyle & Jondreau's Joe Horn (178-ac) 1, R. P. Mayo sur, dry and abn 2958 ft; L. Martin (132-ac) 1, Jos. Deck sur, sd 2445 ft.

LEON COUNTY—John P. Sheffler & Allday's W. R. Thompson (197-ac) 1, N. M. Allen sur, dk. Leon County Oil Co. (Claude Kavanaugh's) John Morris (200-ac) 1-A, A. F. McWhorter sur, sd 2535 ft. Penn Oil Co. & Shell Pet. Corp.'s Wm. Phillips (160-ac) 1, S. A. Swayze sur, materials.

LIMESTONE COUNTY—C. M. Joiner Pet. Corp. & Miller Drlg. Co.'s W. Stephenson (54-ac) 1, Geo. Gentry sur, sd 1800 ft.

MORRIS COUNTY — Buchanan-Burkhalter et al's Staggers (65-ac) 1, Forbes & Nelson sur, elev 370 ft, hard Pecan chalk 2526-3020 ft, Austin chalk 3483-3506 ft, sd 3554 ft. C. M. Joiner Pet. Corp. & Harris Drlg. Co.'s C. D. Brown 1, lcn.

RAINS COUNTY—Fred Harris et al's M. A. Markowitz (106-ac) 1, Chas. Despaler sur, materials. Lone Star Synd. (was C. H. Bayless') J. S. Ownby 1, Alexander sur, elev 461 ft, top Midway 1130 ft, top Pecan chalk 1996 or 2043 ft, Austin chalk 3468-3800 ft, top Woodbine series between 4440-60 ft, top Red beds 4705 ft, dry and abn 4986 ft.

RUSK COUNTY—T. E. Castle et al's R. H. Gary (50-ac) 1, J. Latham sur, Pecan chalk 2678-3050 ft, dr 3245 ft. G. A. Hathaway et al (was Laster & Miller's) Gray 1, Jas. McClain sur, elev 315 ft, Pecan chalk 2180-2537 ft, top Austin chalk 2980 ft, claim show oil 3150-80 ft, dr 3530 ft in Georgetown lime. John Kegans et al's R. L. Needham 1, J. H. Chambers sur, sp. R. H. Lemon & A. F. Richardson's Luke Motley-H. Wood (498-ac) 1, J. I. Sanches sur, lcn.

SMITH COUNTY—McRobie et al's C. P. Hamilton (259½-ac) 1, J. Rector sur, dk.

UPSHUR COUNTY — B. L. Watson (was Hill Kinsey) et al's D. J. Smith 1, J. R. Davis sur, sd 1860 ft. Scott & Ashland's H. Doughfrate (128-ac) 1, M. P. del Torres sur, rig. H. H. McMurphy et al's E. A. Cobb (50-ac) 1, John Lout sur, lcn.

VAN ZANDT COUNTY—Daisy O&G Co.'s Mrs. C. A. Browning (100-ac) 1, J. P. Tackett-Bell sur, Pecan chalk 2109-2230 ft, top Austin chalk 3160 ft, dr chalk 3290 ft. B. E. Gamble et al's I. D. Walker (1-ac) 1, J. Walling sur, lcn. C. M. Powell et al's W. E. Price (3¾-ac) 1, John Walling sur, lcn. A. C. Roan et al's W. E. Price (7-ac) 1, John Walling sur, rig.

WOOD COUNTY—DeGenther & F. H. Zeigen et al's M. L. McClain (66-ac) 1, Sam Brooks sur, tested salt water at 1882-94 and 1935-42 ft, coring 2405 ft. W. B. Saulsbury et al's T. H. Peterson (320-ac) 1, W. B. McNutt sur A-418, dk. Talko Pet. Corp.'s (now J. T. Miller et al) C. S. Ross (86-ac) 1, F. L. Smith sur, elev 359 ft, top Pecan chalk 2892 ft, co 3500 ft. Wood County O&G Co.'s Guy Davis 1, John R. Clute sur, sd 2350 ft.

Permits for Texas Wells

ARCHER COUNTY — W. B. Omohundro, Wichita Falls, Jno. Turbeville, 40, 3B, B 35, Club Ranch sur, 300 ft n of No. 1, White, Duncan, Holt & Tedford, Wichita Falls, S. Webb, 40, 8, B 1, I&GN sur, 150 ft from n and 750 ft from e line. Texas Plains Oil Co., Wichita Falls, W. H. Terrill, 120, C6, B 17, W. L. Herring sur, 300 ft n of No. 4; C5, 300 ft n of No. 2; C8, 300 ft w of No. 6; C7, 300 ft w of No. 4. Wichita Prod. Co., Wichita Falls, R. T. Stuart, 69, 1, B 152, J. W. Harris sur, 200 ft from n and 1600 ft from w line. Wheeler & Brashear, Wichita Falls, C. Abercrombie, 40, 1, B 156, J. W. Harris sur, 200 ft from n and e lines. W. H. Junker, Olney, J. A. Kunkel, 27, 1, B 4, T. McCoy sur, 150 ft from n and e lines. Houston & Houston, Wichita Falls, C. Browning, 19, 2, No. 7, GE&L sur, 150 ft from w and 450 ft from s line. Fain-McGaha Oil Corp., Wichita Falls, Fee B, 60, 3, DCSL No. 3 sur, 247 ft from w and 150 ft from n line B 2.

ATASCOSA COUNTY — E. A. Parkford, San Antonio, J. Dickinson, 600, 1, No. 153, 990 ft from n and 150 ft from w line lot A6.

BASTROP COUNTY—R. R. Ogden, Austin, C. L. Riddle, 94, 1, Gray & Leach sur, 750 ft from s and 150 ft from w line.

BEE COUNTY—Gulf Coast Oil Co., Houston, R. A. McKinney, 878, 3, R. C. Ballard sur, 597 ft e of No. 1.

BEXAR COUNTY — Gatlin Oil Co., San Antonio, I. A. Beck, 279, 15, J. Montez sur, 150 ft from e and 151 ft from s line. Linde Oil Co., San Antonio, J. Watson, 200, 1, C. Landin No. 46, 150 ft from e and 600 ft from s line.

BOWIE COUNTY—R. E. Anderson, Texarkana, Ark., Breckenridge, 464, 1, N. Dycas sur, se corner of blk 81.

BRAZOS COUNTY — Wicklund & Dickinson, Bryan, A. Mosley, 15, 1, Wm. Mathis sur, 1050 ft sw of center of ne line.

BRAZORIA COUNTY—C. E. Moore et al, Houston, Speer, 10, 1, T. F. Pinckney sur, 585 ft from e and 856 ft from s line of survey.

BROWN COUNTY—Chris Doss, Ft. Worth, A. O. Angel, 120, 1, S 2, B. H. Garvin sur, G. W. Baker, Brownwood, G. P. Hall, 60, 1, B 38, KCSL sur, 150 ft from w and 710 ft from s line. B. V. Whitfield, Oklahoma City, A. J. Newton, 102, 1, R. Honeycut sur, 150 ft from n and w lines.

CALLAHAN COUNTY—Texacal O&G Co., Baird, J. S. Hart, 40, 8, S 7, D&D Asy. sur, 150 ft from n and w lines. Ungren & Frazier et al, Abilene, I. N. Jackson, 90, 3, S 21, E. T. Ry sur, 600 ft from e and 400 ft from s line se¼ ne¼. S. E. Colgin, Dallas, J. C. McDermitt, 160, 6, S 181, B 45, CCSL sur, 1350 ft from n and 450 ft from e line. C. B. Holmes, Baird, A. R. Kelton, 40, 1, S 148, BBB&C sur, 1050 ft from w and 150 ft from s line.

CARSON COUNTY—Texoma Natural Gas Co., Amarillo, S. B. Burnett, 2G, S 102, B 5, I&GN sur, 2670 ft from w and 1342 ft from s line of sec.

CHAMBERS COUNTY — Texas Gulf Producing Co., Houston, Kirby, C, 15, 4, H. Griffith sur, 175 ft sw of No. 3. T. H. McLean, 2, H. Griffith sur, 716 ft sw of center of ne line. O. K. Winfree, 38, 2, W. D. Smith sur, 100 ft sw of center of ne line.

COLLINGSWORTH COUNTY — A. T. Kates, Kenilworth, Ill, Bell, 160, 1, S 102, B 21, H&GN sur, 200 ft from n and e lines of nw¼. C. N. Cochran et al, Wellington, W. I. Adkinson, 160, 1, S 26, B 21, H&GN sur, 765 ft from n and 1125 ft from e line of sec.

CORYELL COUNTY—Coryell County Oil Corp., McGregor, J. Q. Davidson, 273, 1, N. Robertson, 800 ft from n and 1300 ft from w line.

DUVAL COUNTY—Cole Pet. Co., Laredo, R. Benavides, 40, 76, S 19, B 8, 150 ft from nw and 1010 ft from ne line. Clark & Cowden, Duncan, Okla., G. W. Sutherland, 320, 1, S 3, 450 ft from w and 150 ft from s line. Duggan & Smith, Laredo, G. W. Sutherland, 40, 1, S 188, NE¼ NE¼, 150 ft from s and e lines. McGinley Corp., Laredo, J. A. Lundell, 80, 2, S 48, 200 ft from s and e lines; 3, 920 ft n of No. 2. Magnolia, Dallas, B. White, 120, 1, S 44, J. Poitevent sur, 150 ft from w and 450 ft from s line. Sun, Dallas, Cuellar, 160, 2, S 576, BS&F sur, 200 ft from s and w lines. L. W. Capps, Houston, Duval Ranch, 160, 2A, S 574, 200 ft from s and w lines. Parr Oil Co., San Diego, Texas, Benavides Sch. 8, 1, B 1-1½-2 Rosita sur, 160 ft from s and e lines.

ECTOR COUNTY — Phillips Pet. Corp., Bartlesville, Okla., H. Scharbauer, 2, S 43, B 44, T&P sur, 330 ft from n and w lines s½ sw¼. Harrison & Turner, Big Spring, Addis, 640, 1, S 35, B 43, T&P sur, 330 ft from n and 1320 ft from w line of sec.

FORT BEND COUNTY—Gulf, Houston, J. M. Moore, 34, M. Smith sur, 670 ft n and 430 ft w of No. 33.

GREGG COUNTY — Frazier & Sullivan, Longview, T. Elder, 1, B 1, M. Van Winkle sur, center of lot. F. A. Bates, Shreveport, La., M. T. Cole, 40, 4, E. M. Bramlette sur, 330 ft from s and w lines. Heyser & Heard, Dallas, M. Strong, 9, 1, G. F. Penn sur, 330 ft n of center of s line. Smith O&G Co., Oklahoma City, M. E. Church, 2, 1, M. Van Winkle sur, center of blk 169. J. B. Bond, Longview, C. Fisher, 5½, 1, Ruddle sur, center. Redick & Hughes, Tyler, Fee, 10, 2, W. H. Castleberry sur, 330 ft off center of e line. J. B. Sowell, Dallas, Mrs. E. L. Walker, 34, 3, E. L. Walker center. Abernathy & Kirkpatrick, Gladewater, R. M. Woods, 3, 8, H. R. Hokit sur, 300 ft s of center of n line blk 134. Houston, Oil Co., Houston, M. B. Hughey, 60, 3, P. W. Warraner sur, 198 ft from w and 345 ft from e line. Kingwood Oil Co., Okmulgee, Okla., A. Godfrey, 10, 2, M. Van Winkle sur, 113 ft from n and 329 ft from e line. M. E. Croom, Dallas, C. E. Hineman, 2½, 1, G. W. Hooper sur, center. Superior Oil Co., Dallas, H. Pritchard, A, 100, 8, F. W. Johnson sur, 704 ft nw of No. 5. Selby O&G Co., Tulsa, Okla., M. T. Cole, 80, 8, J. M. Meador sur, 330 ft from w and 1571 ft from s line. W. W. Bradley, Gladewater, G. W. Richey, 3, 1, Wm. Carleton sur, 104 ft from n and 294 ft from e line. Marine Prod. Co., Longview, G. W. Richey, 3, 1, Wm. Carleton, center. Madelyn Oil Co., Longview, J. W. Rosser, 1, 1, T. Johnson sur, 277 ft from n and 50 ft from e line. Duluth East Texas Oil Co., Gladewater, Gladewater Sch. 2, 1, M. Dillard sur, 80 ft from e and 102 ft from s line blk 20. J. C. Hunter, Gladewater, T&P Ry, 13, 3, H. R. Hokit sur, 50 ft sw of center of nw line. Lucey Pet. Corp., Longview, Kinsel, 47, 5, Kirk sur, 1018 ft from e and 330 ft from s line. Humble, Houston, J. F. Bowles, 100, 7, D. Ferguson sur, 766 ft from w and 160 ft from s line. J. A. Knowles, 100, 9, M. Van Winkle sur, 105 ft from e and 485 ft from s line. W. C. Mackey, 198, 2, H. F. Rogers sur, 352 ft from w and 1070 ft from s line. W. C. Shoults, 123, 1, S. S. Davis sur, 330 ft from n and w lines. Gulf Prod. Co., Houston, J. C. Judge, 518, 27, F. W. Johnson sur, 330 ft from e and 405 ft from s line. Amended location. A. Spear, 279, 18, M. Van Winkle sur, 1130 ft s of No. 11. M. B. Hughey, 50, 5, P. W. Warraner sur, 189 ft from e and 395 ft from s line. Amended location. S. Hilburn, B, 187, 30, L. B. Outlaw sur, 660 ft n of No. 27. Atlantic Oil Prod. Co., Dallas, J. C. Judge, 520, 25, F. W. Johnson sur, 990 ft from n and 330 ft from e line; 24, 330 ft from n and e lines. P. C. Castleberry, 35, 4, G. W. Hooper sur, 250 ft from n and 150 ft from w line. Turner, 162, 11, W. C. Wakeland sur, 200 ft e of center of w line. M. Hays,

B, 404, 25, W. C. Alvice, 330 ft from s and w lines. W. T. Burnside, B, 231, 17, Johnson sur, 330 ft from n and 1931 ft from e line, 18, 1010 ft from n and 575 ft from e line. Yount-Lee Oil Co., Beaumont, Thrasher Stuckey, 80, 6, G. W. Hooper sur, 170 ft from w and 399 ft from s line. Sun Oil Co., Dallas, G. Reese, 124, 10, I. Hov sur, 330 ft from w and 176 ft from s line; 9, 330 ft from s and w lines. Wm. Pentecost, 131, 7, M. Scott sur, 330 ft from n and 400 ft from e line. J. Rollins, 87, 5, M. Scott sur, 330 ft from n and e lines. J. N. Campbell, 107, 4, G. R. Rains sur, 660 ft se of No. 3, Sinclair Prairie Oil Co., Fort Worth, A. A. King, C, 127, 4, E. H. Angell No. 2 sur, 330 ft from s and w lines. A. A. King, B, 337, 19, A. Cormack sur, 4995 ft from w and 330 ft from s line. Corrected location. A. A. King, B, 149, 9, Jno. Keiser sur, 2988 ft from s and 960 ft from w line. A. A. King, C, 127, 1, E. H. Angell sur, 330 ft from w and 1230 ft from n line. M. T. Cole, 666, 30, S. Brooks sur, 330 ft from w and 1838 ft from s line. A. A. King, B, 147, 8, Jno. Keiser sur, 840 ft from w and 330 ft from s line. Shell Pet. Corp., Dallas, N. Jobe, 84, 3, P. W. Warraner sur, 1000 ft from n and 330 ft from e line. P. F. Laird, A, 206, 6, Jno. Wilkinson sur, 330 ft from n and w lines. J. W. Akin, 100, 4, W. H. Castleberry sur, 330 ft from n and 1379 ft from e line. Empire G&F Co., Gladewater, L. J. Rogers, 70, 5, G. A. Thomason sur, 990 ft from n and 330 ft from w line. J. T. Jeter, 123, 6, D. B. Choate sur, 303 ft nw of No. 2. Simms Oil Co., Dallas, A. J. Tuttle, 95, 6, W. H. Castleberry sur, 330 ft from n and w lines. A. Christian, 23, 3, G. W. Hooper sur, 200 ft from n and 270 ft from e line. Texas Co., Shreveport, La., M. T. Cole, 145, 10, E. L. Walker sur, 180 ft from w and 2015 ft from s line. Tidal Oil Co., Kilgore, Lake Devernia, 270, 16, G. R. Rains sur, 330 ft from n and w lines. Mrs. A. Davis, 130, 11, W. H. Hart sur, 330 ft from w and 950 ft from s line. Stanolind O&G Co., Fort Worth, J. C. Persons, 146, 13, W. H. Castleberry sur, 330 ft from s and 932 ft from w line. Arkansas Fuel Oil Co., Shreveport, La., Mrs. D. Allison, 59, 7, Wm. Robinson sur, 640 ft nw of No. 4. Magnolia Pet. Co., Dallas, J. A. Parnell, 40, 3, H. H. Edwards sur, 330 ft from n and 250 ft from w line. V. L. Goolsby, 73, 3, G. R. Rains sur, 330 ft from e and 1778 ft from s line.

GRAY COUNTY—Suloch Oil Co., Amarillo, J. S. Morse, 320, 3, S 16, B A9, H&GN sur, 330 ft from n and w lines. Clyde Pulse, Enid, Okla., Shell, 74, 1, S 128, B 3, I&GN sur, 290 ft from n and 250 ft from e line. Texas Co., Wichita Falls, J. E. Williams, 80, 11, S 7 B 1, ACH&B sur, 330 ft from n and 990 ft from e line nw¼. Skelly Oil Co., Tulsa, Okla., E. Schafer, 640, 13, S 189, B 3, I&GN sur, 2100 ft from e and 1210 ft from s line of sec.

GRIMES COUNTY—W. J. Brightwell, Henderson, N. Harrison, 20, 1, S. Bowman sur, 350 ft from s and 622 ft from w line.

HARDIN COUNTY — Rio Bravo Oil Co., Houston, Fee, 128, J86A, C.F.S. Jorditt sur, 20 ft s of No. J86. Paggi Bros Oil Co., Beaumont, Fee, 1, B1, C.F.S. Jorditt sur, 30 ft from s and e lines.

HARRIS COUNTY — Crown Central Pet. Corp., Houston, E. G. Siadous, 61, 1, W. J. Lovett, 425 ft from e and 150 ft from s line. J. M. Huber Pet. Co., Borger, Johnson, C, 80, 1, S 34, B Y, A&B sur, 330 ft from w and 990 ft from n line e½ sw¼.

JACK COUNTY—R. J. Brown, Henrietta, S. J. Christian, 100, 4, E. Smith sur, 300 ft n of No. 3; 5, 1035 ft from n and 150 ft from w line. Texas Plains Oil Co., Wichita Falls, M. N. Garrett, 320, 1, BBB&C sur, 100 ft from n and 150 ft from w line e½ se¼.

MARION COUNTY — Starling & Preston, Jefferson, L. Henderson, 535, 1, R. Bennington sur, 360 ft from w and 2100 ft from s line.

McLENNAN COUNTY — C. P. Sheldon, Electra, W. C. Webb, 200, 1, I. Galindo sur, 900 ft from n and 100 ft from w line.

MEDINA COUNTY—F. Ryal, Hondo, G. Martin, 160, 1, H. Castro sur, 150 ft from s and w line blk. 368.

MONTGOMERY COUNTY — Gulf Coast Drilling & Prod. Co., Houston, South Texas Dev. Co., 40, 1, A. McCown sur, 466 ft from n and e lines.

NUECES COUNTY — Gulf Coast Oil Co., Houston, W. L. Dinn, 800, 1, No. 412 School sur, 330 ft from n and e lines. Romanix Oil Co., Corpus Christi, T. H. Isensee, 40, 1, S 404, B 12, 150 ft from n and w lines. Houston Oil Co., Houston, W. W. Walton, 272, 1, Rge. 6, S 9, 220 ft from n and 170 ft from e line.

RUSK COUNTY—Geo. Despot, Shreveport, La., W. L. Friar, 74, 1, T. H. Smith sur, 330 ft from s and w lines. Gant & Garvin, Ardmore, Okla., Moore, 134, 3, M. V. Pena sur, 330 ft e of center of w line. Geo. Guthrie, San Antonio, Mrs. G. Perry, 20, 2, Ryan & Cook sur, 233 ft from e and 200 ft from s line. Etex Oil Co., Dallas, L. Morse, 10, 3, R. W. Smith sur, 150 ft from n and e lines. R. L. Tennant, Dallas, L. Taliaferro, 5½, 1, center. Killam & Gibbs, Tyler, W. M. Camp, 5, 1, J. Ximinez sur, 277 ft from n and 196 ft from e line. D. Bradford, 3, 1, J. Ximinez sur, 210 ft from e and 192 ft from s line. Goodnight-Donald Oil Corp., Dallas, L. Tolliver, 11, 3C, J. Ximinez sur, 150 ft from w and 220 ft from s line. G. & A. Oil Co., Longview, W. Roberson, 90, 3, T. J. Martin sur, 500 ft n of No 1. Falcon Co., Fort Worth, G. W. Tipps, 3, 1, B. F. Poindexter sur, 165 ft from n and w lines. G. W. Tipps, 1½, 1, W. J. Roan sur, 135 ft from n and 110 ft from w line. Combined Oil Int., Fort Worth, G. W. Eaton, 144, 11, F. Cordova sur, 584 ft from w and 150 ft from s line. Dave Donoghue, Rec. E. L. Chapman, Fort Worth, Mrs. A. P. Finney, 40, 4, I. G. Parker sur, 285 ft from n and 330 ft from e line; 5, 660 ft from n and 150 ft from e line; 6, 240 ft from e and 220 ft from s line. W. D. Reynolds, Henderson, H. D. Studdard, 22, 1, J. Ximinez sur, 330 ft from s and w lines. Ebony Oil Co., Henderson, A. J. Deason, 25, 4, M. J. Pru sur, 150 ft from e and 566 ft from s line. Gulf Prod. Co., Houston, G. G. Turner, 312, 17, F. Cordova sur, 332 ft from e and 620 ft from s line. W. Florence, 165, 12, J. S. Whiteman sur, 203 ft from s and 1346 ft from w line. O. R. Baton, 55, 1, M. Cogswell sur, 174 ft from n and 369 ft from w line. Stanolind O&G Co., Fort Worth, W. H. Siler, 983, 29, M. Walker sur, 1080 ft from n and 2820 ft from w line; 28, 3110 ft from n and 820 ft from e line; 27, 3050 ft from n and 1900 ft from e line; 26, T. M. White sur, 2220 ft from n and 1530 ft from e line; 25, 1700 ft from n and 1120 ft from e line; 24, 1260 ft from n and 1900 ft from e line; 23, 330 ft from n and 1010 ft from e line; 30, M. Walker sur, 1200 ft from n and 3980 ft from w line; 31, 1320 ft from n and 4820 ft from w line; 32, 1900 ft from n and 2390 ft from w line; 33, 1840 ft from n and 3330 ft from w line; 34, 2060 ft from n and 4230 ft from w line. Stanolind Oil & Gas Co., Fort Worth, R. J. Burton, 154, 12, T. M. White sur, 330 ft from s and 2184 ft from w line; 11, 330 ft from s and e lines; 10, 330 ft from s and 1350 ft from e line; 9, 330 ft from n and 1770 ft from e line. Hunt Prod. Co., Tyler, D. M. Bradford, D, 226, 4, J. Ximinez sur, 1320 ft e of No. 1. Shell Pet. Corp., Dallas, W. P. Moore, 140, 11, H. Wiggins sur, 330 ft from w and 1440 ft from s line. Texas Co., Shreveport, La., A. W. Kersh, 211, 5, E. B. Foulks sur, 712 ft s of No. 4.

SMITH COUNTY—Brogan O&G Co., Tyler, T. O. Wright, 5½, 2, J. Vargas sur 5, 165 ft from w and 150 ft from n line. Arcadia Refg. Co., Tyler, W. R. Wolford, 8, 2, Jas. Jordan sur, 330 ft from e and 112 ft from s line. J. S. Wheeles, Jr., San Antonio, G. Patterson, 182, 2, S. Dexter sur, 660 ft s of No. 1. Cockburn & Hooker, Overton, L. A. Jackson, 28, 1, E. Danields sur, 283 ft from n and 330 ft from e line. Golden Eagle Oil Co., Tyler, T. B. Collier, 11, 1, Jas. Jordan sur, 250 ft w of center of e line. J. H. Moore, 8, 1, J. Vargas sur, 330 ft from n and 345 ft from e line.

SHACKLEFORD COUNTY—A. C. Walker, Albany, L. H. Hill, 40, 7, S 38, Blind Asy. sur, 750 ft from n and 450 ft from e line. Kiser & Fleming, Albany, P. K. Clarke, 16, 4, S 2, Blind Asy. sur, 300 ft nw of No. 1. Putnam Oil Co., Cisco, E. A. Jeter, 80, 1, S 15, B 11, T&P sur, 210 ft from n and 150 ft from e line. C. M. Root, Eastland, L. C. McKelvey, 100, 1, S 9, B 11, T&P sur, 900 ft from e and 200 ft from s line. A. B. Bissey, Albany, H. Herron, 160, 1, S 10, B 11, T&P sur, 750 ft from s and w line of nw¼. Mrs. B. Cuno, Moran, W. L. English, 40, 2A, S 18, Univ. Lands sur, 50 ft s of No. 2.

STARR COUNTY—Tarver & Nance, Inc., San Antonio, A. M. K. Bass, 60, 5, Por 76, B 7, 750 ft from n and w lines. C. V. Van Matre, McAllen, S. George, 80, 1, Sh. 5, Por 75, 150 ft from n and e lines. Los Olmos O&G Co., Harlingen, K. Bass, 40, 24, S 7, Por. 75-76-77, 450 ft from s and 150 ft from w line nw¼ se¼. K. Bass, 40, 25, S 7, 450 ft from s and w li nw¼ se¼.

TERRELL COUNTY—Marion Briggs, Sanderson, Kerr, 640, 1, S 18, B D5, 790 ft from n and 1800 ft from w line.

TYLER COUNTY — Republic Prod. Co., Houston, Southwestern Dev. 640, 1, A. Sterne sur, 485 ft from n and 8384 ft from w line of sur.

UPSHUR COUNTY—Cranfill Reynolds Oil Co., Houston, L. Graves, 119, 3, M. Irwin sur, 660 ft w of No. 1. Champlin & Bass, Inc., Tyler, E. G. Brawley, 58, 1, McKinney-Williams sur, 330 ft from w and 762 ft from s line. Simms Oil Co., Dallas, J. J. Flewellen, B, 374, 20, M. Mann sur, 330 ft from s and 2875 ft from w line. J. J. Flewellen, 200, 6, M. Mann sur, 3300 ft from w and 400 ft from s line. Amended location. Arcadia Refg. Co., Tyler, A. O. Phillips, 23, 3, S. Harrell sur, 430 ft nw of No. 1. Rio Oil Corp., Fort Worth, L. Graves, 106, 6, M. Irwin sur, 930 ft from e and 330 ft from s line. Snowden & McSweeney Co., Ft. Worth, M. Bonner, 100, 2, J. McRae sur, 330 ft e of center of w line. Humble O&R Co., Houston, I. D. Smith, 246, 12, H. H. Edwards sur, 395 ft from e and 1522 ft from s line. California Pet. Co., Shreveport, La., A. G. Dearing, 70, 6, J. M. Pineda sur, 330 ft from e and 769 ft from s line.

VAN ZANDT COUNTY—Pure Oil Co., Ft. Worth, R. L. Wells, 51, 14, M. Gross sur, 500 ft from e and 550 ft from s line. R. A. Howell, 25, 4, M. Gross sur, 250 ft from n and e lines.

WILLIAMSON COUNTY—McNeill & Matthews, Inc., Taylor, M. A. Bachmeyer, 234, 1, C. C. Browning sur, 500 ft from e and 150 ft from s line.

WICHITA COUNTY—Deep Oil Dev. Co., Wichita Falls, Kemp, 174, 1, W.V.F.L. sur, 330 ft from s and w lines of blk 29.

WHARTON COUNTY—Gant & Teas, Austin, L. Hann, 142, 1, N. Maucha sur, 330 ft from n and e lines.

WHEELER COUNTY — Elbar Corp., Chicago, Ill., M. Huselby, 160, 1, S 70, B 24, H&GN sur, 350 ft from w and 1656 ft from n line. Piney O&G Co., Shamrock, W. E. Bentley, 160, 4, S 42, B 24, H&GN sur, 330 ft from s and e lines.

WARD COUNTY—Weekley Oil Corp., Fort Worth, Burke, 160, 1, S 26, B 34, H&TC sur, 330 ft from se and sw lines.

WILSON COUNTY — A. M. Blume, San Antonio, O. B. Nichelson, 77, 1A, M. J. Hernandez sur, 455 ft from ne and 320 ft from se line.

YOUNG COUNTY—Culbertson Co., Wichita Falls, Belknap, 40, 1, 2250, TE&L sur, 450 ft from e and 783 ft from s line. E. R. Perkins, Olney, S. H. Bishop, 25, 1, 162, TE&L sur, 150 ft from n and e lines. Mitchell Cooper et al, Olney, J. P. Dunagan, 68, 8, 163, TE&L sur, 1450 ft from w and 550 ft from n line. Seitz, Comegys & Seitz, Wichita Falls, J. W. Bullock, 40, 1, 61, TE&L sur, 783 ft from n and w lines. Hodges & McLaughlin, Wichita Falls, N. Holcomb, 1, E. G. Rector sur, 500 ft from e and 3867 ft from s line. Sid Swink, Cisco, E. C. Keith, 120, 5, 267, TE&L sur, 150 ft from n and 450 ft from e line. J. H. Davis, Fort Worth, G. Stewart, 80, 1, B 7, Y.C.S.L. sur, 420 ft from w and 225 ft from s line. Pacific Atlantic Oil Service Co., Olney, J. L. Lowe, 40, 1, 2244, TE&L sur, 400 ft from n and 350 ft from w line. Spudder Drlg. Co., Wichita Falls, Carpenter, 40, 2, 164, TE&L sur, 150 ft from w and 450 ft from s line. Art Tucker, Graham, J. F. Gilmore, 100, 1, B 3, BBB&C sur, 330 ft from s and w lines. G. C. Raley, Wichita Falls, S. A. Morris, 40, 1, 254, TE&L sur, 150 ft from n and 466 ft from e line. Chas. A. Daubert, Wichita Falls, E. Weems, 120, 1, 626, TE&L sur, 150 ft from n and w lines.

ZAPATA COUNTY — Huff & Fudge, G. Uribe, 40, 1, Sh. 7, Por. 6, blk. 8. Hynes & Nessley, San Antonio, P. Trevino, 300, 1, C. Redondo sur, 150 ft from s and e lines.

NORTH and WEST TEXAS

Wildcat Producer May Start Activity in New Section. Two More Ordovician Lime Tests Started.

H. H. KING, *Staff Representative, Fort Worth, Texas*

Wildcat Strike in New North Texas Area

Wichita Falls, Texas.—Wildcat discoveries shifted to a new section of the North Texas district when the Texas State Oil Company, Dallas, developed a 75 barrel flowing well near the center of a 600-acre block in west central Wilbarger County from sand at 1440-80 feet. This new strike is about one mile west of the Fluhman pool, and in the Day Land & Cattle Company Survey. Location has been made by the Texas State Oil Company for an offset to be drilled on the B. D. Flaniken 80-acre lease farmed out by Gulf Production Company.

Shallow gas production estimated at 4,000,000 cubic feet daily was developed from sand at 600-16 feet by Seitz-Comegys & Seitz's Bullock 1, located in section 61, T. E. & L. survey, Young County. This production was passed up in expectation of encountering an oil sand near the 700-foot level.

Two tests in the Canyon lime horizon in the northwest extension of the Chalk Hill field, Archer County, were ready to complete late last week, and a third in the immediate area was nearing the pay level. Deep Oil Development Company et al's Wilson 1, lease 18, cemented casing at 2230 feet after coring oil saturated sandy-shale at 2233-35 feet, and the same company's Wilson 1, lease 5-B, was also awaiting cement to set after coring oil sand at 2233-38 feet, with the hole bottomed in shale at 2239 feet. L. T. Burns and C. B. Long's Wilson 14 was drilling below 1700 feet. Deep Oil Development Company's Wilson 1, lease 5, extension well of the area, failed to flow natural when deepened three feet to a total depth of 2247 feet, and will be pumped with a Star machine.

Revival of Drilling Seen for Eunice Pool

Hobbs, N. M.—A revival of Drilling in the Eunice pool, Lea County, is expected to follow the completion of Tidal Oil Company et al's State 1, CSW NE Section 8-21s-36e. This outpost was preparing late last week to cement seven-inch pipe near the 3860-foot level before penetrating the regular lime horizon, which has yielded eight flowing wells in the pool. This new test is located about one mile north of production, and has logged all key formations more than 100 feet higher on structure than other wells, with frequent oil showings between 3410 feet and the last casing point. It reported top of anhydrite at 1240 feet, and salt body at 1340-2600 feet, with an elevation of 3591 feet. The top of the brown lime, principal marker, was logged at 2870 feet. Darby Petroleum Corporation and Devonian Oil Company are co-owners of this test and the 160-acre drilling site.

Another flowing well on the southwest flank of the Hobbs field developed water trouble August 7 when Midwest Refining Company's State 33, SEc W½NW Section 4-19s-38e, began showing three per cent sulphur water while prorated to 180 barrels daily, with a potential open flow rating of 7602 barrels daily. This well resumed making pipe line oil when shut in several days, but may have to produce under the allowable to forestall a reappearance of water. It was completed two years ago in lime at 4018-4175 feet, with a surface elevation of 3612 feet. There are 19 wells showing water in the field, and one additional well is inactive. Five others showed water, then resumed making pipe line oil by pinching back.

Deepening of Gypsy Oil Company's Warren Graham 2, NEc NE Section 24-18s-37e, failed to boost the oil flow, but did increase the volume of gas. This well was tested in lime at 4042-4190 feet and earned an open flow rating of 4666 barrels and 4,000,000 cubic feet of gas.

Two Ordovician Tests For Big Lake Field

San Angelo, Texas.—Authorization has been made by the Big Lake Oil Company for the immediate drilling of two more Ordovician lime tests in the Big Lake field in order that oil and gas drainage from this 8500-9000-foot horizon may be prorated over a wider area and to lessen the withdrawals from deep wells that are making water. Cellars have been dug preparatory to the erection of rotary derricks for the two deep tests which will be located north and northwest of existing Ordovician lime production. Ten wells have been completed in this field to the Ordovician, including six by the above company, and four by the Group One Oil Corporation (Continental Oil Company). Two of the deep wells are off production, and five of the eight on production are showing bottom hole water.

The new drilling ordered by the Big Lake Oil Company includes University 8-C, located 710 feet north and 2410 feet west of the southeast corner of section 12 block 2. University 9-C is located 2870 feet north and 765 feet west of the southeast corner of the same section. A string of three-inch tubing was suspended in University 6-C, most recent completion, about 30 feet off bottom last week by Big Lake Oil Company in order to throttle the production and to obtain a more favorable gas-oil ratio. This well has a total depth of 8836 feet, and produced 3680 barrels of 55 gravity oil and 23,019,000 cubic feet of gas, flowing against 700 pounds back pressure on the casing on the day prior to the scheduled change of flow from casing to tubing.

C. L. Renaud and T. M. Prettyman et al's University 1, an outpost test in Ward County, proved good for 75 barrells oil daily flowing by heads when tested in sandy-lime at 2688 feet. Tankage has been erected to deepen the hole. The well began showing oil in top of sand body at 2472 feet, but scored best pay in the last four feet of formation drilled. It is located on the west edge of Gulf Production Company's Hutchings-O'Brien producing leasehold.

North and West Texas Field Developments

Completions

NORTH TEXAS

ARCHER COUNTY—		
R. J. Brown et al, Plemmons 4	250	712
Burns & Long, Harolson 1	15	1422
Gilliland & Rosser, Walsh-Gulf 4	75	1342
Chas. F. Newsom et al, Richardson 1	*	1151
Shappell Oil Co., H. Wilmot 2	*	1819
Texas Plains Oil Co., W. H. Terrell 3-C	50	689
W. H. Terrell 4-C	225	646
White-Duncan et al, S. Webb 7	3	440
Whitehill Oil Corp., Morrison 20	20	673
C. C. Williams et al, Owens 1	*	665
WICHITA COUNTY—		
S. H. Walton et al, Gulf Tank Farm 1	*	903
WILBARGER COUNTY—		
Barkley & Meadows, Waggoner 14-C	50	1125
YOUNG COUNTY—		
Henry Craig et al, Davis 2, Sec. 1395	20	883
Holbrook & Woods, Dean 10, Blk. 10	15	594
Hodges & McLaughlin, Fitzgerald-Holcomb 1	*	365

WEST TEXAS

GLASSCOCK COUNTY—		
Amerada Pet. Corp., Coffee 4	665	2276
JONES COUNTY—		
B. A. Duffey et al, S. W. King 3	*	2100
UPTON COUNTY—		
Geo. Farley et al, J. F. Lane 3	230	2371
WARD COUNTY—		
Bradford & Bentley, B. Carson 1	15	2250

SOUTH TEXAS

Government Wells Area May Extend Eight Miles. Tuleta Field Looking Up With Two New Wells Expected Soon.

EARL POST, *Staff Representative, San Antonio*

Government Wells May Extend Eight Miles

San Antonio, Texas.—A giant field, at least eight miles long, is pictured in the Government Wells sector of northwestern Duval County. This was indicated during the past week by the bringing in of a wildcat producer seven and one-half miles northeast of fartherest north production in this area.

Operators have been playing a northeast and northwest trend through northern Duval County since the discovery of oil in the Original Government Wells field, just south of the town of Freer, several years ago. The next strike came to the southwest in the extension pool. Following that, Sarnosa was opened farther southwest. Then the North Government Wells pool was opened to the northeast. While each pool likely is separate from the other, they undoubtedly should be grouped into a composite producing area. They encounter the same type of structure, about the same level, and act very similar in production.

The newest strike is Buchanan and Terrell's Hagist 1, 1320 feet from the south and west lines of Survey 267, near the McMullen County line, which is flowing around 6,000,000 cubic feet of gas and spraying a little oil. A second well will be necessary to establish the producing trend. This well got the Cole sand at 1449 feet, high, but corresponding to the other area. It topped the gas sand at 2110-22 feet, shale at 2122-34 feet and oil sand at 2134 feet, being still in sand at 2144 feet. This is quite like the other area. Judging from these formations and the general trend, it is quite likely that it will play an important part in lining out the area.

There is an 18-mile strip, much already proven, between this new producer on the northeast and Hynes & Nessley's Weil 1, Section 130, producer in the Sarnosa area on the southwest.

While wildcatting holds interest in this section, the drilling boom continues in the present proven sections of the field, there being between 20 and 30 rigs running continuously. The most outstanding completion of the week was Whisenant, Trenchard and French Oil Corporation's Hahl 1, Survey 44, Rosita townsite, in the north field, which flowed better than 100 barrels an hour initial on choke from 2305 feet. In the Sarnosa district, Survey 576, Thomas and Tarver, Inc., got a 40,000,000 cubic-foot gasser in Duval County Ranch Company 1 from a total depth of 2430 feet. It had a good gas sand at 2363-74 feet.

Another Crevice Pool Indicated

San Antonio, Texas.—B. E. Brock et al, Ogletree 1, Robert Smith Survey, about one mile north of the town of Prairie Lea and the same distance from the Luling field, Caldwell County, indicates another crevice in the Balcones area. The well had been shut down for more than a year at 1780 feet. It was taken over several weeks ago by the present operators, who cleaned out the hole and deepened it to 1815 feet, where it is flowing a small stream of oil through the mud. A break in the formation was encountered just above the total depth, from which the oil likely is coming. Casing is to be set and the well completed.

Fishing Job on Jones Deep Refugio Test

San Antonio, Texas.—Edwin M. Jones is having more hard luck with his deep test in Refugio field, which has a total depth of 9131 feet. The well, the Josephine Mitchell 1-B, showed water when drilled in, was plugged back and now has a fishing job for a portion of the pipe. This well indicated a new deep producing horizon, the deepest east of the Rockies, recently when it showed oil and gas at this level.

Two New Wells Expected in Tuleta District . . . Area Active

San Antonio, Texas.—Tuleta district, recently discovered several miles south of Pettus, in Bee County, holds the spotlight in Central San Antonio district with two wells nearing the top of the sand. Coquat et al's J. P. Harris 1, Section 13, 1000 feet southwest of the discovery well, is down below 3000 feet and The Texas Company's Cox 1, J. M. Uranga Survey, just west of the discovery, is making hole below 3500 feet. Both wells were expected to core the sand over the weekend.

C. F. Nichols' J. P. Harris 1, Section 2, Durango Survey, was brought in July 21 for several hundred barrels daily from 4087-98 feet. The two above mentioned wells are the first to reach interesting stages since that time.

Several other operations are under way in this new area. C. F. Nichols' J. P. Harris 2, Block 7, Section 2, had a derrick blown down by the recent storm. John O'Neill's J. P. Harris, also on Section 2, is drilling at a comparatively shallow depth. Both wells likely will be on top of the sand before the close of the month.

At a hearing before the railroad commission in Austin August 15, an agreement was reached by operators in the Tuleta area on practices to be followed in development of the field. The agreement is to be issued in the form of an order by the commission. In the agreement a maximum production of 150 barrels per well per day was provided, allowing 40 barrels flat allowable for each well and the remainder to be figured on the basis of one well to 10 acres. Where this practice is followed, a production of 150 barrels will be allowed. The gas-oil ratio of 2000 cubic feet per barrel of oil was also set.

Another interesting well in Bee County is the Gulf Coast Oil Company's R. A. McKinney 3, located 1135 feet north of the United Production Company's Ray 13 and 660 feet east of William F. Morgan's original McKinney gasser. The well, located in the S. Morris Survey, near the Karnes County line, has a sand at 3662-70 feet and is flowing by heads, not having cleaned itself. It is flowing 50 barrels at present, but probably will do considerably better when finally completed. It opens the way to further development in that area several miles northwest of Pettus.

The three tests drilling in the Southwest Pettus and Cosden areas, southwest of the Pettus townsite, are now rather discouraging. Coquat and Barnsdall Oil Company's Leroy Roberts 1-2, Kerr Survey, got a sand at 3690-3706 feet, the regular level, but it was dry. The well is now drilling at 3860 feet. Slick Estate's Ray 7, also Kerr Survey, has a total depth of 3961 feet after coring a dry sand at 3930-40 feet. The west offset to this well, Texas Company's Gremmel 6, Pace Survey, although quite deep, still holds promise of hitting the sand. It was down 3942 feet at last report.

Stanolind Well Plugged Back to 4580 Feet

San Antonio, Texas.—After coring to 4753 feet, Camp and Stanolind Oil & Gas Company plugged to 4580 feet in Bennett 1, San Patricio County wildcat near Edroy. The well topped a sand at 4571 feet and showed oil and gas on drill stem tests. A string of 6⅝-inch casing has been set to 4561 feet and preparations are now being made to drill in.

The exact location is 1320 feet out of the southeast corner of Section 8, Bennett Lands in the George D. Paul subdivision, J. J. Welder Survey.

San Antonio, Texas. — Brogan and Wormser succeeded in plugging back their F. A. Pfullman 1, L. Bollinger Survey, Guadalupe County, from 2364 feet to 2334 feet, where a test is being made of a break in the Georgetown. The break at 2318-20 feet, showed oil. It is on the Sal-Mar block, where chalk production, probably from a crevice, was discovered several months ago.

San Antonio, Texas.—Paton Brothers have recovered the drill stem stuck in C. A. Turner 1, Lee County, and are preparing to resume drilling. The well has a total depth of 5674 feet, near the top of the Austin chalk.

South Texas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
ATASCOSA COUNTY—		
Atascosa Oil Co., Martin 1-A, Diego Perez sur	*	2980
American Cen. O&G Co., McConnell 2, blk 138, Baker sur	*	1660
DUVAL COUNTY—		
Buchanan & Terrell, Hagist 1, sur 267, 9 mi ne N Gov't Wells, new district, spray oil	¶6	2144
Mag. Pet. Co., Wendt 3, sur 44	384	2296
Plymouth Oil Co., Parr 1, blk 48, San Andres Grant	*	5828
Thomas & Tarver, Inc., Duval Co. Ranch Co. 1, sur 576	¶40	2450
Whisenant, Trenchard & French Oil Corp., Hahl 1 sur 44, Rosita Townsite	2400	2305
GONZALES COUNTY—		
Johnson-Mattocks O&G Co., J. James 1, Williams sur	*	3269
GUADALUPE COUNTY—		
R. R. Ogden, Zunker 1, L. Bollinger sur	*	2092
KARNES COUNTY—		
Pickett et al, Myers 1	*	3606
McMULLEN COUNTY—		
V. G. Schimmel et al, Two Rivers Ranch Co. 1, sec 59	*	1654
MILAM COUNTY—		
Keyser et al, Irwin 2, Levi Taylor sur	*	1575
STARR COUNTY—		
Hooks & Weaver, Kelsey-Bass 10	20	480
Grass Roots Oil Co., Gonzales 1, sur 339	¶¼	166
Los Olmos O&G Co., Kelsey Bass 25	60	475
VICTORIA COUNTY—		
Victoria Oil Co., Keeran 2, M. de Leon sur	1000	5851
WEBB COUNTY—		
French Oil Corp., R. Benavides 1-B, sur 659	75	2331
O. W. Killam, Hogterp 1, blk 6, sur 1100	*	2370
WILLIAMSON COUNTY—		
McNeil & Matthews, Bachmayer, C. C. Browning sur	*	2040
ZAPATA COUNTY—		
Allied O&G Co., Gutierrez 35, share 4, Fansler Part, Comitas Grant	50	1476
Shankle-Newton Oil Co., Trevino 18, blk 14	35	1270

Wildcat Drilling Report

(Wells shut down not included)

ATASCOSA COUNTY — F. H. Etheridge, McCowen-Dickinson 1, Campbell-Berry sur, sw part of county, 5 mi ne Jacob pool, dr 500 ft.

BEE COUNTY—Coquat et al, J. P. Harris 1, sec 13, Tuleta, dr 2400 ft. Coquat & Barnsdall, L. Roberts 2, Kerr sur, Cosden, snd 3690-3706 ft, dry, dr 3830 ft. Goast Coast Oil Co., R. A. McKinney 3, S. Morris sur, N. Pettus, snd 3662-70 ft, flowing by heads. Howeth & O'Neill, King Ranch 1, 7 mi ne Beeville, dr 1500 ft. C. F. Nichols, J. Harris 2, blk 7, sur 2, Tuleta, dk blown down by storm; Kimball 1, Stephen Winship sur, Grayburg, dr 2840 ft. John O'Neill, J. P. Harris 1, sec. 2, set sur cas, re-dr. Slick Estate, Ray 7, snd 3930-40 ft, dr, sd 3961 ft. Texas Co., Pace sur, Pettus, dr 3937 ft; D. W. Cox 1, J. M. Uranga sur, Tuleta, dr 2630 ft.

BEXAR COUNTY—Alamo Nat'l Gas Co., G. J. Gembler 4, A. Menchaca sur No. 4, Eckert, td 730 ft, to deepen. American Gas Co., Kennon 5, Rodriguez sur No. 4, Gas Ridge, try to cut off water 2375 ft. Wm. V. Ballard et al, S. A. Land & Dev. Co., 1-A, I. Perez sur, to re-dr 970 ft. E. M. Carl et al, F. Gembler 1, J. Montez sur, Eckert, snd 806-24 ft shale 824-26 ft, set 6-in cas 800 ft, cement gave way, sd temp. Carter & Weinert, A. Gembler 1, J. Montez sur, Eckert, dr 400 ft. Robert C. Hill, F. Schell 1, sec 234, Perretaux sur, sp. Linda Oil Co., Watson 1, Cruise Ladin sur, 10 mi sw S. A., ru. C. J. Webster O&G Co., S. A. Sub Irr Frms 1, lot 2, blk. 49, near Medina, re-dr 900 ft.

BROOKS COUNTY—Ed A. East, A. Garcia 2, La Encantada sur, Alta Vista, mov on.

CALDWELL COUNTY—B. E. Brock et al, Ogletree 1, Robert Smith sur, n Luling field, deepen to 1815 ft, test, show oil and gas, Cargill et al, Dameron 1, Dillard Cooper sur, 3 mi s Lockhart, ru. Owens & Gunby, Dunlap 1, S. Seal sur, Dunlap, td 2250 ft. C. J. Webster O&G Co., C. T. Robertson 1, John A. Neill sur, 1 mi sw McCrory, dk. C. D. Wilford, W. Ewald 1, James George sur, move on.

COLORADO COUNTY — Bunte & Shell, Rudolph Matuska 1, Joshua Henneke sur, re-bld dk destroyed by storm.

DIMMIT COUNTY — Motes-Campbell Co., Denton 1, tracts 33-34, Sec. 60, Denton Colony sub, 12 mi sw Carrizo Spgs, dr 320 ft.

DUVAL COUNTY—J. E. Anderson et al, Welder-Wood 1, sec 73, 2½ mi ne Gov't Wells, ru. R. B. Byrd et al, P. T. Wright 2, sur 101, N. Gov't Wells, lcn cleared. Buchanan & Terrell, Hagist 1, sur 267, 10 mi ne N. Gov't Wells, snd 2110-22 ft shale 2122-34 ft, snd 2134-44 ft, making gas, spray little oil; J. T. Smith 1, sec 46, N. Gov't Wells, sp. Capps & Smith, Duval Ranch 4, sec 576, Sarnosa, set csg 2340 ft, woc. H. H. Coffield, Wendt 2, sur 43, N. Gov't Wells, dr 2200 ft; Wendt 3, sur 43, lcn. Cole Pet. Co., Benavides 76, blk 8, sur 19, Cole, no rept. Delange & Frates, Siever 1, sur 213, 13 mi e Gov't Wells, mov on. Humble, P. White 6, sec 58, Gov't Wells, dr 600 ft. Edwin M. Jones, J. F. Williams 1, sur 131, Sarnosa, dr 1000 ft. Mag Pet Co., Wendt 4, sec 44, dr 1700 ft; Wendt 5, sec 44 sp; Broadbeck 2, sec 44, sp. McGinley Corp., J. A. Lundell 1, sec 48, w of n end of Gov't Wells field, dr 600 ft. Pet Finance Co., C. W. Hahl 1, sec 46, N. Gov't Wells, wait on swab 2296 ft. J. A. Leindecker, G. W. Sutherland 1, sur 183, mov on. San Diego Oil Co., Riley 2, sec 46, dr 1500 ft; Heller 1, sec 44, dr 1200 ft. Southwest Dr. Co., R. Wendt 2, sec 43, dr 2200 ft; Wendt 3, sec 43, lcn. Seacord & Putnam et al, Johnson 1, sec 44, td 1564 ft, gasser, ru to deepen. Sun Oil Co., Cano (Cuellar) 2, sur 576, Sarnosa, dk. Texas Co., Duval Ranch 2-A, sec 574, Sarnosa, snd 2433-38 ft, test 17 fourbles fluid, set cas, woc; Freer 2, sec 45, dr 200 ft. Thomas & Tarver, Inc., Duval Ranch 1, sur 576, Sarnosa, td 2450 ft, cas set, woc. Shell Pet. Corp., Frame 1, sec 73, N. Gov't Wells, lcn; Ruiz 1, sec 73, lcn.

GOLIAD COUNTY—Benedum & Trees & Plymouth Oil Co., Parks 2, BS&F sur, No. 8, fsh 5460 ft. Rowan & Hope & Phillips Pet Co., Irby 1, Jesus Ybarbo sur, dk. Slick-Seeligson, Inc., Allen 3, Slick, dr 1600 ft.

GONZALES COUNTY — Luling O&G Co., DuBose 1, F. R. Whitner sur, dr 500 ft.

GUDALUPE COUNTY—Brogan & Wormser, Pfullman 1, L. Bollinger sur, Sal-Mar, plugged back from 2364 to 2334 ft, to test; Harris 1, Sal-Mar, dk; Hempel, Sal-Mar, lcn, to mov on immediately. George E. Smith, Behring 1, dr 600 ft.

JIM WELLS COUNTY—Catlett & O'Neill, H. D. Miller 2, J. M. Andrate sur, dr 700 ft. Larcro Gas & Pet Co., Wade 3, lcn.

KARNES COUNTY—Heweth et al, Pargman 1, Victor Blanco sur, testing 4305 ft.

KERR COUNTY — Eastland Oil Co., Jeff Love 1-B, sec 1594, Love Ranch, trying to shut off water 2350 ft.

KLEBERG COUNTY—Carter & Ellis, R. H. Simmons 1, sec 7, King sur No. 3, re-dr 3190 ft.

LEE COUNTY—Paton Bros., C. A. Turner 1, David Hudson sur, td 5674 ft, recover ds to 2110 ft.

LIVE OAK COUNTY—J. H. Durbin et al, J. Marbach 1, S. Hayes sur, 3½ mi ne Jacob area, dk.

McMULLEN COUNTY—Jacob, Buzzini & Pickett, Inc., Jacob 5-A, W. H. Jacob sur No. 10, Jacob, ru. Jaqua & Crow, E. R. Hagist 1, R. W. Mills sur, lcn. Longhorn Oil Co. & American Gas Co., Lark 1, Scrugham sur, re-dr below sur cas.

NUECES COUNTY — Gulf Coast Oil Co., Frank Bliss 1, sec 406, coring 4095 ft, Perkins & Legasse 2, sec 26, Sheppard Farms, dr 3920 ft. Houston Oil Co., Harrell 2-A, sec 28, dr 1000 ft. McCarthy, Rogers, Nix et al, Isencee 1, blk 12, dr below 2000 ft.

REFUGIO COUNTY—Humble, M. V. O'Conner 1, Keathing sur, sd 5972 ft; O'Conner 2, Keathing sur, mill out 2210 ft, whipstock to complete as gasser. Edwin M. Jones, J. Mitchell 1-B, Refugio sur, td 9131 ft, fsh for ds.

SAN PATRICIO COUNTY—Camp & Stanolind, Bennett 1, sec 8, J. J. Welder sur, dr to 4753 ft, plug to 4580 ft, set 6-5-8-in cas 4561 ft woc.

STARR COUNTY—Frank Doyno, Seabury et al, Share 5, por 75, ru. Griffin et al, Sanches 1, 15 mi n Roma, mov on. Jeffries Lambert Dr Co., Starr Co. Cattle Co. 1, blk 34, por 89, ru. Strayalls Oil Corp., Caffarelli 1, share 19-A, por 80-81, dr below 500 ft. Matthews & Chitty, R. E. Conroe 1, share 3, por 70, ru. Raddig, Davis & Bowers, M. Guerra 1, sur 110, lcn. Korona Oil Co., Doyno 3, share 77-A, blk 8, dk.

VICTORIA COUNTY — Houston Oil Co., McFadden 1-A, Irr No. 20 sur, td 5292 ft, sidetracking. Humble, Rydolph, Kemper sur, dr 4255 ft. Slick-Seeligson, Inc., McFadden 2, td 4496 ft, gasser, mov on to deepen. Texas Co., A. M. McFadden 3 (wo), J. M. Rine sur, ru to wo, 5832 ft. Union Oil Co., Keeran 1, M. de Leon sur, coring 5400 ft.

WEBB COUNTY—O. W. Killam, Smith 1, blk 6, sur 1100, dr 2100 ft; Hoogterp 2, blk 6, sur 1110 lcn. Norden & Morris, Gates—Kirkpatrick 2, sec 19, blk 5, dr 1700 ft; Gates-Kirkpatrick 3, blk 5, sur 19, lcn. Newton Dr Co., A. Garcia 1, sur 52, dr 1000 ft. South Texas Oil Co., P. Rosenberg 7, blk 10, sur 271, set cas 2248 ft, woc.

WILSON COUNTY—August Blume, Nicholson 1-A, 2½ mi s Floresville, set 6⅝-in csg 890 ft, woc.

ZAPATA COUNTY—F. M. Blair & Sons, Montemayor 1, blk 1, share 63, dr 1710 ft. Stevens & Pope, Martinez 1, blk 95, sur 434, mov on.

GULF COASTAL FIELDS

Water Disappoints Ariola Prospects. Conroe Proration Curb Rescinded.

WM. V. GROSS, *Staff Representative, Houston, Texas*

Ariola Well Going Deeper After Testing Salt Water

Houston, Texas.—The interesting oil-showing sand tested last week by Republic Production Company in its joint wildcat project with Houston Oil Company on the Ariola salt dome prospect, southeastern Hardin County, failed to yield commercial production, merely producing salt water with a slight show of oil when a swab was operated in a full string of 2½-inch tubing.

Still hopeful of developing worth-while production, however, the owners of the test subsequently pulled the 31 feet of screen which had been set in the erstwhile promising sand at the bottom of the hole, and planned to drill deeper. The screen had been set for testing oil-showing sand logged from 3260 to 3286 feet, and the hole had been cased to 3259 feet with 9⅝-inch pipe. In the swabbing test the operators were unable to lower the fluid below 300 feet.

This wildcat is the first test drilled on a prospect which was discovered several years ago through geophysical prospecting, and which offered favorable possibilities on the basis of that work. While the initial test on the prospect has failed as yet to establish commercial petroleum production, it has enhanced the already impressive prestige of the geophysicists, confirming their opinion of the existence of conditions conducive to petroleum accumulation. For the Republic-Houston Oil well not only encountered the sand which was tested last week but had previously penetrated at least two shallower oil showing sands, the first around 2325 feet and the other at about 2800 feet. The 3260-3286-foot horizon which was tested last week was a brown, medium-grained sand heavily saturated, the sand body being practically solid, with only suggestions of a few shale breaks.

Original discovery of the Ariola prospect is generally credited to Gulf Production Company, with the seismograph as the means employed, and 1928 as the discovery year. Other companies, however, also worked the area with geophysical instruments, including Humble Oil & Refining Company and Shell Petroleum Corporation, and the prospect was generally looked upon with favor, being regarded usually as a salt dome.

The Ariola prospect is about 10 miles northwest of Beaumont, and its location with respect to nearby salt dome fields is approximately as follows: 15 miles northwest of Spindle Top, 10 miles east and a little north of Sour Lake, 14 miles east of Saratoga, and 18 miles east of Batson.

Ariola Fee 1, the first well of the area, is located 3359 feet south of the north line and 9711 feet west of the east line of the 4400-acre Eduardo Ariola Survey, all of which is held in fee by Republic Production Company and Houston Oil Company. Gulf Production Company is prominent among operators holding acreage adjoining the land of the Republic and Houston Oil interests.

Aside from the deepening of the original well there, the Ariola prospect will be further tested immediately through drilling of a second well. Late last week Houston Oil Company was moving in a rotary drilling rig with which it will drill the Houston Oil Company-Republic Production Company test, Ariola Fee 1, located somewhat east and a very slight distance north of the original well on the prospect, the location of the second test being 3000 feet south of the north line and 5610 feet east of the west line of the E. Ariola Survey.

Conroe Proration Lifted Pending New Hearing

Austin, Texas.—That part of the railroad commission's conservation order of August 9 for the Conroe field, Montgomery County, which fixes allowable production of wells there has been rescinded, and a substitute ruling will not be issued until after a new hearing of operators is held before the commission at Austin on August 30.

Withdrawal of the restriction on production was made by the commission August 18 through setting aside Rule 24 of its Conroe conservation order, and the field will be without production restraint until it can hold the hearing which it has scheduled. The other rules and regulations of the Conroe order, however, including restrictions on drilling and production practices, have not been lifted.

The commission decided to hold the new hearing after having been advised by the attorney general's department that there was a defect in the notice which it had sent out announcing the hearing on which the recent order was based. The notice stated that proration orders were to be placed in effect when production of the field should reach 10,000 barrels daily, but the commission then began prorating the field when the output was only 3000 barrels daily.

Action of the commission in rescinding the rule affecting production is interpreted as an outgrowth of a suit filed last week in Harris County attacking the commission's right to carry out its conservation program in the Montgomery County field. Alpha Petroleum Corporation, plaintiff in the case, sought but last week was denied by Federal Judge T. M. Kennerly a temporary restraining order to prevent the railroad commission from enforcing its Conroe proration order against a producing well and about 25 aces of oil leases held by the company in the field. The company was given permission, however, to file formal suit and bring the matter to a court hearing.

It was asserted in the petition in the case that at a formal hearing held in Houston the commission without any evidence being introduced to show the maximum amount of oil the field might be permitted to produce without waste arbitrarily fixed the field allowable, and on August 9 at a hearing held without proper notice issued a "special order" amending the field rules.

Port Barre Pipe Line Outlet in Operation

Houston, Texas.—The Texas Pipe Line Company recently placed in operation its new 46-mile combination four-inch and six-inch coupled oil pipe line from the Port Barre field, St. Landry Parish, southern Louisiana, to a point on the west bank of the Mississippi River across from Baton Rouge.

The company has erected an 80,000-barrel steel tank at the Mississippi River terminus of the line, and at that point has also driven piling which will serve as docks for loading large tankers. Crude oil which accumulates in the steel tank will be loaded from time to time on ships and moved down the Mississippi and around the Gulf Coast to the Port Arthur refinery of The Texas Company.

Crude oil which will be handled by the above facilities will come from the Port Barre salt dome field, and will include not only the production of The Texas Company, producing affiliate of The Texas Pipe Line Company, but also oil produced

by Gulf Refining Company of Louisiana. Those two producing units have been leaders in development of the field and have most of the proven and promising acreage there.

Construction of the Port Barre pipe line outlet was carried out by Apex Construction Company (Williams Brothers), contractors of Tulsa and Baton Rouge. The 80,000-barrel tank which will be used in connection with the line was formerly used by The Texas Pipe Line Company in the Borger district, Texas Panhandle.

Conroe Field Extended Slightly Eastward

Houston, Texas.—The productive area of the Conroe field, Montgomery County, was extended 800 feet eastward the past week by the one new well brought in during that period, and meanwhile drilling progressed on numerous other wells, including several in the southern portion of the field which will contribute materially to outlining of the productive limits and toward interpretation of the structural conditions which exist there. During the past week the field averaged 3950 barrels production daily from eight wells. Those producing wells are scattered over an area about three miles in extent from east to west and about one mile north and south.

The well which was completed last week to extend the field slightly eastward was the C. C. Steinberger 1, John A. Davis Survey, purchased recently by Humble Oil & Refining Company from Heep Oil Corporation and C. C. Steinberger. During the first 24 hours after completion on August 16 it produced 720 barrels of 37.9 corrected gravity oil from sand at 5060-5080 feet (elevation of the well being 167 feet), flowing through a one-half inch choke on 2½-inch tubing, and registering pressure of 800 pounds on tubing and 680 pounds on the casing.

Immediately north of the Steinberger well Hamilton, Hill and Hill had set casing at 5118 feet late last week over oil sand. Another test which was standing with casing cemented over oil sand at the same time was Moore & Bruton's Hooper 1, I. & G. N. Survey, south of the Steinberger well, its depth being 5022 feet.

Conroe Well Abandoned After Oil and Gas Shows

Houston.—It has been called to the attention of THE OIL WEEKLY by C. T. Palmer, Houston, Texas, that an eror occurred in material published on the Conroe district, Montgomery County, Texas, in the issue of August 8, page 61.

It was erroneously indicated in a table that the House et al (or Ingram) well, C. T. Palmer No. 1, Liberty County, drilled to total depth of 5633 feet and encountered top of the Hockleyensis at 4400 feet. The fact is, according to Mr. Palmer, that the Ingram Petroleum Company's Hornbeck 1, on the Clayton Harper Survey did drill to more than 5600 feet and perhaps topped the Hockleyensis below 4000 feet. But the Ingram Petroleum Company's and House et al's C. T. Palmer 1 was located about one mile northwest of the Hornbeck well and on the south part of the Joseph Fenner Survey, and was shut down and abandoned at 3620 feet. "We had several showings of oil and strong gas pressure to that depth," stated Mr. Palmer.

Gulf Coast Field Developments

TEXAS GULF COAST

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BARBERS HILL—		
The Texas Co., Wilburn 7, wo....	285	4422
CONROE—		
C. C. Steinberger & Heep Oil Corp., C. C. Steinberger 1, Jno. Davis sur, near Heep's Freeman 1....	720	5080
FALLS COUNTY—		
E. W. Bateman's Czajkowski 2, dry in Edwards lime	*	4143
HULL—		
Gulf Coast Oil Co.'s Finley 1	135	1945
HUMBLE—		
The Texas Co., House 26	50	3830
PIERCE JUNCTION—		
S. B. Ward, Mowery 1, temporarily abn	*	1704
WALKER COUNTY—		
Geo. F. Kerr, Smither Bros. 1, S. Manning sur	*	3805

Wildcat Drilling Report

(Wells shut down not included)

AUSTIN COUNTY—Great Southern Drlg. Co.'s F. Schovatsa 1, 3 mi s Bleiblerville, dr 2761 ft sandy shale.

BRAZORIA COUNTY — W. D. Southerland's C. W. Chapman 1, Lockridge, And. Robinson sur, dr 4485 ft hard shale. The Texas Co.'s Belcher 3, Manvel, set cas at 4009 ft.

BURLESON COUNTY — Ball Knob Oil Co.'s Polansky 1, 6 mi w Lyons, dr 816 ft shale. Shilo Oil Co.'s Bracey 1, J. Lastly sur, near Somerville, dr 1600 ft shale. Sanson O. & G. Co.'s Duckworth & Gilley 2, P. Singleton sur, near Clay, ru.

COLORADO COUNTY—Bunte et al's Matuska 1, Jno. Hennecke sur, dr 290 ft clay.

FORT BEND COUNTY — Naylor & DeCosta, Naylor 1, 1½ mi n Thompson, Horatio Christman sur, dr 5100 ft shale. North Star Pet. Co.'s Guyler 1, And. Roberts sur, dr 550 ft gbo.

GALVESTON COUNTY—Humble's Elias V. Rosenkranz 1, Sarah White sur, ru.

GRIMES COUNTY—J. C. Barnett et al's G. W. Dodd 1, w Iola, ne part county, Timothy Jones sur, sd 2672 ft. W. J. Brightwell's Combs 1, ru.

HARDIN COUNTY—W. R. Alexander et al's Southwestern Lbr. Co. 1, ne Votaw about 3 mi, Mary K. Sherman sur, dr 2395 ft shale. Republic Prod. Co. & Houston Oil Co.'s Ariola Fee 1, Edwards Ariola sur, drilling deeper from 3286 ft after testing salt water, see story in this issue. Houston Oil-Republic's Ariola 1, mvg in rig.

HARRIS COUNTY — Bayou Prod. Co.'s Dermoody 1, 1 mi w Fauna, Wm. Hedge sur, dr 1115 ft gbo. T. V. Bucholz & Son's Miller 1, Deer Park, dr stem stuck in gbo at 975 ft. Indian Hill Oil Co.'s W. L. Schweinle 1, near Hufsmith, Wm. White sur, n part county, sd 3611 ft. Jno. Deering's Warren 1, Hockley, fsh for dr stem 2410 ft. Crown Central Pet. Corp.'s Siadous 1-A, Mykawa, dr 2615 ft shale. Hamill & Smith's Ward 1, Mykawa, ru.

JASPER COUNTY—P. Michael's F. L. Eck 1, G. C. & S. F. sur No. 1, prep spud.

JEFFERSON COUNTY—Coast O&G Co.'s J. O. B. Young 1, 3 mi ne Pt. Arthur, Jos. Grigsby sur, dr 700 ft.

LIBERTY COUNTY — Cranfill Reynolds Co.'s Esperson 5, Esperson, dr 6309 ft shale. Leon Brisley, Tr.'s, J. M. Neal 1, E. Tanner sur, dr 1950 ft gbo.

MATAGORDA COUNTY—Shepherds Mott Dev. Co.'s Hawkins 1, Sheppards Mott, dr 4935 ft shale. United N. & S. Dev. Co.'s Stoddard 1, Buckeye townsite, dr 7895 ft after sidetracking.

MONTGOMERY COUNTY — Conroe District. Alpha Pet. Corp.'s R. R. Dunn Est 1, N. W. Real sur, dr 2195 ft shale. Craft & Giescke's Keystone Mills 1, A. S. James sur, dr 1240 ft shale. Gulf Coast Drlg. & Prod. Co.'s South Tex. Dev. Co. B-1, s Alex McCown sur, ru. Hamilton, Hill and Hill's Gilbert 1, J. Davis sur, set cas over oil showing sand at 5118 ft. Humble's R. L. Cartwright 1, Jno. Davis sur, dr 3300 ft shale; C. L. Dobbins 1, Ransom House sur, dr 4837 ft sandy shale; South Tex. Dev. Co. 4, T. C. Howell sur, dr 4875 ft shale; No. 5 ru; No. 6 ru. Steinberger's & Heep's Steinberger 1, Jno. A. Davis sur, completed for 720 bbls daily at 5080 ft. Lilley & Red Moon Oil Co.'s McDonald 1, J. Davis sur, dr 675 ft. Moore & Bruton's Hooper 1, I.-G.N. sur, set cas at 5020 ft. Rowe & Flowers' Alexander 1, Alex McCown sur, washing over stuck dr stem at 5095 ft. G. W. Strake's S. Tex. Dev. Co. 3, Theo. Slade sur, dr 5650 ft sand and shale. The Texas Co.'s Moody 1, bldg dk. Dutton & Hawkins' T. S. Foster 1, J. M. de la Garza sur, dk. R. H. Vise et al's L. S. Ross 1, dr 3219 ft shale. McElroy Oil Corp.'s C. A. Damuth 1, T. J. Nichols sur, dr 3050 ft shale.

NEWTON COUNTY—L. A. James' Price & Bevil 1, 4 mi ne Bleakwood, N. B. Lewis sur, dr 1200 ft shale. Sun Oil Co.'s Peavey-Moore Lbr. Co. 1, F. Stover sur No. 4, sw cor county, dr 2575 ft shale.

SAN JACINTO COUNTY—Darby, Jones & McBee Dr. Co.'s J. R. Bennett 1, nw Cold Springs, dr 1100 ft shale and lime. Joe L. Pace's Foster Est 1, H. & T. C. sur No. 3, dr water well.

WALLER COUNTY—Seven Wells Corp.'s Maxwell 1, Justo Liendo sur, dr 2875 ft shale.

LOUISIANA GULF COAST

Completions

Company, Well and Location	Initial Production Bbls.	Depth
JEFFERSON DAVIS PARISH—		
D. C. Gillette, Jester 1, sect. 27-8s-3w	*	3725

Wildcat Drilling Report

(Wells shut down not included)

ASCENSION PARISH—Rio Bravo Oil Co.'s Community 1, Darrow, dr 1560 ft gbo. Union Sulphur Co.'s United Lands Co. 22 ru.

CAMERON PARISH—Union Sulphur Co.'s Pure Oil Co. 1, nw flank East Hackberry dome, dr 6319 ft rock in sdtr hole.

IBERVILLE PARISH — Shell's Wilbert 6, White Castle, ru.

JEFFERSON DAVIS PARISH — Shell's Fontenot 2, Iowa, dr 1290 ft gbo. D. C. Gillette's Jester 1, sec 27-8s-3w, abn in lime and gbo at 3725 ft.

VERMILION PARISH — Pure Oil Co.'s Mulvey Irrig. Co. 1, Gueydan dome, dr 3628 ft sticky shale.

VERNON PARISH—Minerals Division of Llano Co.'s Llano del Rio 1, 2 mi sw Leesville, dr 1420 ft shale.

MICHIGAN FIELD

Michigan Extension Wells Show High Initial Output

Mt. Pleasant, Mich.—Two direct north and south offset wells in the east extension pool of the Central Michigan field were drilled in this week with initial productions of over 1100 barrels daily, the best showings of any wells in the field over a period of several weeks.

The Pure Oil Company's Seeley 2, Section 9, SE SE, had an initial of 1175 barrels while its south offset, Columbia Oil and Gas Company's Hill 2, Section 16, NE NW NE, had a 1125 barrel initial. Both of the wells are in Greendale Township, Midland County.

Pure Oil Company also completed its Harris 2, Midland County, Greendale Township, Section 15, SE NW, for 115 barrels. Production here was lighter than had been anticipated with the well offsetting a 500 barrel well.

Pure Oil Company produced 500 barrels of oil over a six-day period from its Bernard B-5, Midland County, Greendale Township, Section 9, SE SE, from the Traverse sand at 3100 feet. Drilling now has been resumed and the test will be sunk into the Dundee, about 550 feet deeper.

Athat Drilling Company continued this week to test its State Bank 1, wildcat test in Midland County, Ingersoll Township, Section 21, SW SE, sunk to 4631 feet the well made a gas show from the Sylvania formation. An attempt is being made to exhaust the water from the hole to determine if the well has commercial gas possibilities. It is one of the deepest tests ever to be drilled in this district.

As the week closed there were 30 active tests in Midland County, five in Isabella County, one in Gratiot and one in Mecosta, the Central Michigan area.

Oceana County Producer Good for 75 Barrels

Mt. Pleasant, Mich.—Six-inch casing is being run this week on Edward DuVall's Oscar Weirich 1, wildcat oil test in Oceana County, Elbridge Township, Section 31, 15N 16W, and with the casing in and the well swabbed out it is believed it will make about a 100-barrel producer from the Traverse.

Oil was struck in the Traverse at 1912 feet a week ago and during the time which it has been flowed open it has made around 60 to 75 barrels a day.

The Weirich is the first test in Oceana County to show commercial possibilities.

Pure Well Fire Checked Before Much Damage

Mt. Pleasant, Mich.—The Pure Oil Company's State-Isabella A-3 oil well which has been on a pump for several months was fired August 11 when it flowed over a tractor being used to pull the tubing. Damage was estimated between $1,500 and $2,000.

The fire was extinguished before it had spread into the surrounding woods. The well is located in the old Chippewa Township pool of Isabella County.

Michigan Field Developments

Completions

Company, Well and Location	Initial Production Bbls	Depth
MIDLAND COUNTY—		
Columbia Oil and Gas Co., Hill 2, Greendale Twp., Sec. 16, ne nw ne	1125	3565
Pure Oil Co., Seeley 2, Greendale Twp., Sec. 9, se se	1175	3576
Pure Oil Co., Harris 2, Greendale Twp., Sec. 15, se nw	115	3568

New Operations

MIDLAND COUNTY—Edward Stewart et al Opperman 3, Greendale Twp., Sec. 13, nw nw se.

ISABELLA COUNTY — J. C. Arthurs Co., Thayer 1, Vernon Twp., Sec. 23, nw nw sw.

Wildcat Drilling Report

(Wells shut down not included)

OCEANA COUNTY—Edward DuVall, Oscar Weirch 1, Elbridge Twp., Sec. 31, 15n-16w, flowing from 50 to 75 bbls a day from Traverse limestone, running 6-inch casing, total depth 1912 ft. Varner and Lockwood, Orin L. Flood 1, Pentwater Twp., Sec. 34, sw nw, moving in.

SAGINAW COUNTY—Atha Drilling Co., Murphy 1, Richmond Twp., Sec. 22, sw ne, dr at 3332 tt, 110 ft in Dundee sand, no production. Webber, Kirchner 1, Tittatabwse Twp., Sec. 15, dr 2400 ft.

LIVINGSTON COUNTY—White Star Oil Co., Shield 1, Genoa Twp., Sec. 6, dr in Sylvania 1500 ft.

OGEMAW COUNTY—Pure Oil Co., Yeo 1, Horton Twp., Sec. 2, testing at app, 5900 ft.

MIDLAND COUNTY—Atha Drilling Co., State Bank 1, Ingersol Twp., Sec. 21, sw se, testing for gas at 4631 ft.

MECOSTA COUNTY — American Natural Gas Co., Buzard 1, Sheridan Twp., Sec. 10, se se se, dr 1150 ft.

CLARE COUNTY — Theodore Oil Co., Thompson Bros. 1, Greenwood Twp., Sec. 35, se sw ne, dr 1400 ft.

ISABELLA COUNTY — E. S. Hammond, Graham 1, Chippewa Twp., Sec. 22, nw nw sw, spudding.

LOUISIANA FIELDS

Seventeen New Operations For Louisiana Fields

Shreveport, La.—A total of 17 new locations were staked during the last seven day period in North Louisiana, six of which were wildcats in five different parishes. The Zwolle area reported 10 new operations, and one test will be drilled in the gas area of Union Parish.

North of the Homer Field in Claiborne Parish, Robertson & Aurand have derrick pattern on location for their Smith No. 1, Section 8-21-7. A block of approximately 5000 acres has been assembled for the test with a contract for operations to begin immediately. In De Sota Parish, Jack Whitson has staked location for his Sanders No. 1, Section 19-11-13, and Concordia Parish reports a new wildcat with M. M. Stoker and others' Gillespie No. 1, Section 56-8-10. The latter test is about three-fourth's of a mile south of a small gas well drilled by the United Gas Public Service Co. during last year. In Vernon Parish, near the town of Leesville, Earl Jones has derrick pattern on his Willis No. 1, Section 32-3n-9w. This operator has taken over 5000 acres of an original block of 14,000 acres and will drill a 3000 foot test. Northwest of the western Zwolle production, Gibson & Johnson, Inc., have assembled a good block of acreage from the Frost Lumber Co. with a contract to drill two wells. Their No. 1 Frost Lumber Co. is located in Section 19-9-13, and the No. 2 test has derrick up in Section 15-9-13.

Only One Small Well For Zwolle District

Shreveport, La.—Only one small producer was added to the Zwolle area in Sabine Parish during the past week. The Acme Oil & Gas Co.'s Louisiana Long Leaf Lumber Co. No. 3, Section 3-7-11, on the western flank of the field had an initial flow of 125 barrels daily from a total depth of 2567 feet. Two more than offset the one producer, this field reported seven dry holes, most of them being on the outside of proven production lines but within close proximity to recent extensions. All of the completions for the North Louisiana district were from the Zwolle area.

Louisiana Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
SABINE PARISH (Zwolle)—		
Acma O&G Co., La. Long Leaf 3, 3-7-11	125	2567
R. W. Boulding, Williams 1, 17-7-10	*	2628
Hill Myers, Garcia 1 4-7-13	*	2468
Neely et al, C. Henry 1, 23-7-11	*	2933
Otis A. Roberts, Martinez 1, 4-7-13	*	2480
W. S. Smith, Tr. Hamilton 1, 32-8-11	*	....
The Cuming Oil Co., Cobb 1, 14-7-11	*	2525
The Texas Co., Nabors 2, 2-7-11	*	2650
Wurtsbaugh & Torrens, Gray 1, 35-8-13	*	2446
Peterson 1, 26-8-13	*	....

New Operations

ACADIA PARISH — Yount-Lee Oil Co., Beaumont, Tex., Houssiere-Latrielle 1, 47-9s-2w, 5050 ft due e and 1010 ft due n of sw c of sec.

CADDO PARISH—D. C. R. Oil Co., Shreveport, Caddo Ph. School Bd. 1, 16-19n-14w, 2125 ft s and 1500 ft w ne c of sec.

CALCASIEU PARISH — Gulf Ref. Co., Houston, Tex., Lutcher & Moore 31, 19-9s-12w, 2460 ft n and 700 ft e sw c of sec.

DE SOTO PARISH—Jack Whitson, Shreveport, Mrs. Viva Sanders 1, 19-11n-13w, 330 ft n and 330 ft e sw c of sec.

NATCHITOCHES PARISH—Nacatosh Pet. Co., Monroe, Edenborn 2, 4-11n-6w, 1100 ft s and 1950 ft w ne c of sec.

RED RIVER PARISH—Edwards & Clay, Grand Bayou, La. Pecan Orchard, Inc., 1, 27-13n-11w, about 1600 ft from s line and 450 ft from w line of sec.

RICHLAND PARISH — Pelican Nat. Gas Co., Shreveport, J. A. Noe 1, 14-17n-5e, 660 ft e and 1320 ft s n¼ c of sec.

SABINE PARISH—C. H. Tuttle Oil Co., East Point, O. B. Byrd 3, 7-7n-11w, 700 ft e and 510 ft s nw c of sec. Gibson & Johnson, Inc., Ft. Worth, Tex., Frost Lbr. Co. 1, 15-9n-13w, 330 ft s of n line and 330 ft w of e line nw ne of sec.; Frost Lbr. Co. 1, (separate well) 19-9n-13w, 330 ft s and e from center of sec. E. P. Kilgore, Zwolle, Jones et al 1, 32-8n-11w, 330 ft n and 330 ft w from se cor ne ne sec. H. H. Stout, East Point, C. B. Baird 1, 1-7n-11w, 150 ft n and 150 ft e sw cor nw nw sec. Roberts & Sledge, Oklahoma City, Sabine Lbr. Co. 3, 33-8n-13w, 413 ft n and 479 ft w se c se sw sec; Sepulvedo 1, 5-7n-13w, 346 ft s and 673 ft e nw cor sw ne sec. W. M. Neely, Many, Bivens 1, 21-7n-11w, 350 ft s and 100 ft e nw c ne of sec.

ST. LANDRY PARISH — The Texas Co., Shreveport, Botany Bay 12, 4-6s-5e, n 80° e 692 ft thence n 82° w from so ne cor, T. T. Co. B. B. Ter. of Sec.

VERNON PARISH—B. E. Jones, Leesville, J. J. Willis 1, 32-3n-9w, 350 ft n and 400 ft e from sw cor se se of sec.

Wildcat Drilling Report

(Wells shut down not included)

BOSSIER PARISH—Steckel & Breazelle, Nattin 1, sw ne 15-22-14, dr shale and chalk 2190 ft.

CADDO PARISH—John W. Moffit, Cynosure 1, 36-18-15, lcn. Louana O&G Co., Cushman 1, ne sw 33-19-16, testing 2796 ft.

CLAIBORNE PARISH—United Gas Public Service Co. et al, Warren Brown 1, 1-19-6, set 9 inch at 4204 ft. W. E. Rembert et al, Hunt 1, 18-23-8, dr gumbo 1248 ft.

CONCORDIA PARISH—M. M. Stoker et al, Gillespie 1, 56-8-10, rig.

DE SOTO PARISH — De Soto Dev. Co., Mickie 1, 7-13-12, rig. Walters & Nicholson, Jim Guy 1, 3-11-13, coring sand and shale 2764 ft. Honeycut O&G Co., Porter 1, 26-12-13, dk. Jack Whitson, Sanders 1, Sec 19-11-13, sw cor sec, lcn.

GRANT PARISH — Security Pet. Corp., Swope 1, 16-9-1e, wosr 1585 ft. Robichaux et al, Bradford 1, 16-9-1e, ru.

NATCHITOCHES PARISH—Saline Bayou Dev. Co., Bodcaw Lbr. Co. 1, 9-12-15, dr 1080 ft.

OUACHITA PARISH—Monroe Oil & Royalties Co., Thieler 1, 34-18-2e, dr 1170 ft.

RED RIVER PARISH—C. F. Davis, Peterson 1, sw nw 12-14-11, dk. Petroleum Ind. Inc., Madden 1, sw ne, 21-14-10, dr hard lime 2016 ft.

SABINE PARISH—J. M. Bridges, Moore 1, ne nw 5-9-12, set 10-inch at 88 ft. Bridwell O&G Co., La. Long Leaf Lbr. Co. 1, ne nw 31-8-10, rig. H. W. Perritt, Brown Lbr. Co. 3, nw ne 31-8-10, set 10 inch at 140 ft. Loring Oil Co., Bowman-Hicks 18, 15-7-12, sidetracking 10 inch casing at 5277 ft. King, Tr., Davis 1, 29-7-11, lcn. State Production, Davis B-1, 17-7-10, dk. W. S. Smith, Hamilton 1, ne ne 32-8-11, dk abn. Langford et al, Sabine 1, 8-7-13, dk. Wurtsbaugh & Torrens, Peterson 1, 26-8-13, lcn abn. H. C. Maulding, Moores 1, se ne 16-7-13, rig. Triangle Drlg. Co., La. Long Leaf 1, se se 11-6-11, drlg 3517 ft. J. H. Askew, Henderson 1, sw se, 31-8-10, wosr 2497 ft. A. D. King Tr., Webb 1, nw nw 31-8-11, set 6 inch at 2234 ft. Pelican Nat. Gas Co., Buckley 1, nw nw 6-7-10, dr 2527 ft. Paul Miller, Tr., Lucius 1, ne sw, 31-8-10, T. A. 2750 ft. R. W. Boulding, Williams 1, 7-7-10, dry and abn at 2628 ft. Magnolia's Williams 1, 6-7-10, wosr 2490 ft. Ben Merritt, Tr., Chadick 1, sw ne 31-8-10, set 10 inch 38 ft. Bee Oil Co., Hill 1, 32-8-11, set 6 inch at 2239 ft. I. Daniels, Armstrong 1, se nw 31-8-10, dk.

VERNON PARISH—Llano Cooperative Colony fee 1, 34-2n-9w, coring green sand 1450 ft. Earl Jones, Willis 1, 32-3n-9w, se se dk.

ARKANSAS FIELDS

Completions

MILLER COUNTY—
C. E. Hitchfield, Hervey 1, 2-15-26 .. * 2885

Wildcat Drilling Report

(Wells shut down not included)

CLEBURNE COUNTY — Frank S. Craver et al, Doniphan Lbr. Co. 2, sw sw 34-11-9, lcn.

DREW COUNTY — Cooperative Dev. Co., Ogles 1, 35-13-5, coring black shale 3104 ft.

FRANKLIN COUNTY — Ozark Nat. Gas Co., Monroe 1, 13-8-29, dr 225 ft.

LITTLE RIVER COUNTY—Harrell et al, Taffee 1, 25-12s-32w, dr 1620 ft.

MILLER COUNTY—Fitzwater et al, E. L. Beck 1, sw se 35-15-26, dr plug 2919 ft, td 2926 ft. C. J. Norsen 1, se sw 20-15-27, set 10 inch at 121 ft. E. A. McCowan 1, nw se 22-15-28, dk. Fred Peterson, Fouke 1, 11-17-27, set 10 inch at 61 ft, testing 2252 ft.

PIKE COUNTY—Kentucky O&G Co. Inc., East 1, 13-9-23, rig.

ST. FRANCIS COUNTY—Kentucky O&G Co., Inc., Britten 1, ne nw 1-4n-1e, dr black shale 2850 ft.

NEW MEXICO . . . ROCKY MOUNTAIN

Indians Revoke Soap Creek Lease. Border Field Shows Largest Producer.

Staff Correspondent, Casper, Wyoming

Indians Revoke Lease In Soap Creek Field

Hardin, Mont.—The extension oil and gas lease granted to the Argo Oil Company, a Colorado corporation, has been revoked by the tribal council of Crow Indians assembled at the Crow agency recently. The lease is on lands in the Soap Creek field in southern Big Horn County, Montana. The field has been tied up in litigation for several years because of conflicting leases on tribal lands. In June of this year title to the leases in the field was granted to the Argo Oil Company by court decision; shortly before this the Crow tribal council had executed an extension to the Argo for a period of ten years, with certain restrictive provisions which called for immediate development. The council claims that these provisions have not been complied with.

Improvements on the Crow Creek Indian lease in the Soap Creek field have been under the supervision since last June of C. T. Andrews of Denver, who found a market for some of the production at a refinery in Billings. The crude has been trucked from Soap Creek to Billings at the rate of about 100 barrels per day. Andrews has an option on the property from the Argo Oil Company, and he has interested California and Chicago capital, it is said, which would permit him to lay an oil pipe line to railhead and build a black oil refinery near Hardin. Included in the sale, if the option is exercised, will be five producing oil wells, two drilling rigs, a 55,000-barrel steel storage tank, and 35,000 barrels of crude petroleum in storage.

The tribal council asked the Secretary of the Interior, in the resolution prepared at the recent meeting, to lease the Indian lands to parties other than the Argo Oil Company or any of its associated companies or affiliated persons.

Officials of the Argo company stated that a protest, signed by 100 of the educated Crows, against the revoke of the leases, had also been presented to the Secretary of the Interior.

Red Coulee Field Gets Biggest Producer

Sweetgrass, Mont.—Considerable excitement and not a little new interest in the Border, or Red Coulee, field (lying partly in northern Toole County and partly in southern Alberta) was occasioned last week by the completion of the Askalta Oil Company's No. 6 Farbo on SW¼ NE¼ Section 2-27-4e, which came in unexpectedly and was

conservatively estimated to be good for 700 to 800 barrels, while some observers placed the production around 1500 barrels per day. In any case, it is the largest producer, by far, ever completed in the field and will doubtless cause added drilling in the district. The well is in the western part of the field and while certainly not a definite extension, might be considered a pointer to the trend of the producing area, or it may indicate the existence of a crevice or pool in the western part of the field.

Production in the well comes from the Vanalta sand in the Ellis formation. The sand was topped at 2475 feet and drilled in only a short distance when the well started to flow. Casing had been landed at 2473 feet.

The Askalta Oil Company has been the only active operator in the field for several months. There are at present some 30 completions in the field on the Montana side, and seven producers on the Alberta side. In the Montana area there are four water wells, one gas well, two dry holes, and the remainder oil producers. The field was discovered in 1929.

Fiddler Creek Wildcat Being Watched

Osage, Wyo.—Operators are closely watching progress at the Fiddler Creek wildcat well of Julius Peters et al, on the Fiddler Creek structure, four and a half miles southwest of the Osage field. At last report the well was drilling below 4450 feet, presumably only 50 to 100 feet above the objective Muddy sand. Mechanical and formation difficulties have slowed progress at the test recently. Small showings of both oil and gas have been reported and have added more interest and suspense in the outcome of the operation. Well is known as No. 1 Weitzell and is on the SE¼ SE¼ NW¼ 30-46-64, Weston County, Eastern Wyoming.

Lakota Drilling Ten Gas Wells

Casper, Wyo.—Lakota Oil & Gas Company, which is dealing with the City of Casper in the matter of supplying natural gas for domestic and industrial consumption in the event that the city takes over the distribution system of the New York Oil Company, has spotted location, has rig up, and is ready to spud in the No. 7 on SW¼ NW¼ SE¼ Section 1-36n-82w, in the North Casper Creek field, about 25 miles northwest of the City of Casper. The Lakota Company is drilling out a program of ten wells this summer to develop a gas supply.

Salt Water Discourages Colorado Operations

Denver, Colo.—Considerable discouragement is evident among operators interested in the northeastern Colorado district. The Manning & Terry well a half mile east of the Continental Oil Company's No. 1 Briggs has a hole full of salt water, apparently coming from the Dakota topped at 6709 feet. The well is standing bottomed at 6721 feet, waiting for orders, and it is generally believed that it will be abandoned. The Ohio Oil Company's well a half mile to the northeast is fishing for bailer with hole bottomed in the top of the Muddy sand which is about five feet thick and showing some saturation. It will probably be a producer of sorts.

It is beginning to be evident that all geology developed on the territory so far is faulty, and that entirely new theories will have to be worked out before major production can be developed in the district.

Grass Creek Field Runs Have Not Been Stopped

Casper, Wyo.—A report was published recently to the effect that the crude oil runs by the Midwest Refining Company and the Ohio Oil Company from their Embar-Tensleep wells in the Grass Creek field has been suspended. This is officially declared to be without foundation.

Mountain States Field Developments

NEW MEXICO

Completions

CHAVES COUNTY—
Warman Oil Trust, Evans 1, 15-14s-25e . . . . . * 1433

HOBBS FIELD—
Gypsy Oil Co., W. Graham-State 2 ¶2½-4650 4190

Wildcat Drilling Report

(Wells shut down not included)

BERNALILLO COUNTY—Norrins Realty, Pajarito Grant 1, 22-9n-1e, dr 2605 ft.

CHAVES COUNTY—R. D. Compton, sw se 20-10s-24, 10-inch at 418 ft, dr 510 ft.

DE BACA COUNTY—Montgomery et al, Wood 1, sw 6-4n-20e, fsh tools 4662 ft. Landowners Oil Co., State 1, ne 16-1s-27e, dr and carry 6⅝ inch at 5015 ft.

DONA ANA COUNTY—Middle States O&G Co., Boretzi 1, 14-36-5e, rig.

GUADALUPE COUNTY—N. M. Prod. & Ref. Co., McMillan 1, 24-5n-16e, wait for orders 4507 ft.

HARDING COUNTY — Carbon Dioxide Corp., Tinsley 1, 31-21n-31, dr 650 ft.

RIO ARRIBA COUNTY—Governador Oil Co.'s 1, se 14-29n-7w, sd 2642 ft.

ROOSEVELT COUNTY — Peterson et al, Good 1, se ne 32-5s-30e, rig up.

SAN MIGUEL COUNTY—Cabra Springs O&G Co., Thompson 1, ne 21-12-22, chang to steam, td 2540 ft.

SOCORRO COUNTY—J. C. Green et al, 15-2n-5w, dr res 300 ft.

VALENCIA COUNTY—Western Nat'l Resources 1, 15-2n-5w, dr 700 ft. Homer C. Mills, Inc., Tome 1, nw sw 29-6n-3e, bldg rotary.

COLORADO

Wildcat Drilling Report

(Wells shut down not included)

ADAMS COUNTY—Hills Dome Lease Dev. Co., se 27-3s-68w, cem 4025 ft.

ARAPAHOE COUNTY—McDeb Drlg. Co., Fitzsimmons 1, ne 7-4s-68w, dr 6110 ft.

ARCHULETA COUNTY — Oil City Pete Co., Fitzhugh 1, sw 34-33n-13, suspended 717 ft.

DELTA COUNTY — Black Canyon O&G Co., 2, Lot 12, 6-15s-94, install larger rig 330 ft.

EL PASO COUNTY—Gulf States Oil Corp., Carson 2, ne 10-16s-66w, dr out plug 2000 ft.

GRAND COUNTY—Oil & Mineral Lands, Inc., McElroy 1, se sw 14-2n-81, resum at 618 ft.

LA PLATA COUNTY—McGarr Pete Co.'s Pinon Mesa 1, ne 34-33n-12, rig up. Phipps et al, sw 9-33-13, td 520 ft.

LINCOLN COUNTY—Eastern Colorado Oil Corp., State 1, nw 36-14s-57w, dr 3426 ft.

MOFFAT COUNTY—W. A. Myers et al, sw sw 16-4n-101w, fsh 2950 ft.

MONTROSE COUNTY—Uncompahgre O. & G. Co., Vandemark 2, 27-50n-10, co to resume 800 ft.

PARK COUNTY — South Park O&G Co., Milligan 1, se 13-8s-76w, dr bel 3020 ft. South Park O&G Co., Esche 1, ne 5-9s-76w, co and fsh pipe, td 2470 ft.

WELD COUNTY — Tulsa-Ft. Morgan Oil Co., Anthes 1, ne ne 24-8n-59w, carry 10-inch, td 3020 ft. Ohio Oil Co., Butters 1, 7-6n-60w, bailing out 6715 ft. Manning & Terry, Niles 1, ne ne 13-6n-61w, sd for orders 6728 ft.

WASHINGTON COUNTY — Middlemist Oil Co., et al, sw se 14-4s-56w, stand cem 1575 ft.

WYOMING

Completions

WESTON COUNTY (Osage Field)—
Federal Oil Co.'s 3, se ne se 15-46-64 . . . . . 400 ....

Wildcat Drilling Report

(Wells shut down not included)

CONVERSE COUNTY — Converse O&G Co., sw sw 27-33n-72w, dr 2320 ft. McWethy et al, 1-49-67, found oil and gas show in Muddy 530 ft.

FREMONT COUNTY—Ward O&G Co., 28-34-90, dr in hard formation, gas showing 3600 ft.

LINCOLN COUNTY—H. C. Harris et al, se 14-21n-117w, dr 1550 ft.

NATRONA COUNTY—Mutual Oil Synd., sw se 14-36-79, dr 5930 ft. Summit Oil Co., Trevett 1, 21-33-80, dr 1400 ft.

SWEETWATER COUNTY—Vermillion Oil Co., sw se 16-12n-99w, mvg in to res 4685 ft. Hidden Treasure Oil Co., se sw 11-20n-104w, to resume 1720 ft.

UINTA COUNTY—Transwestern Pete Co., Ltd. (Doherty) 6-14n-118, dr 4040 ft. Park City O&G Co., ne nw 16-15n-113w, dr bel 2968 ft. Bear River Oil Co., Ltd., ne se 13-15n-120w, gas show reported 1000 ft.

WASHAKIE COUNTY—Bales Oil Trust, Brome 1, ne nw 31-48n-90w, dr 1450 ft.

WESTON COUNTY—Julius Peters et al, Weitzell 1, nw 30-46-64, oil and gas showing 4520 ft. Gose Synd., ne 28-37n-63w, fsh tools 5050 ft.

MONTANA

Wildcat Drilling Report

(Wells shut down not included)

BROADWATER COUNTY—Capitol O&G Co., nw 7-8n-1e, dr (corrected) 2002 ft.

CARBON COUNTY—Corbett Royalty Co., sw se 1-6s-23e, standing 1150 ft. Jack Creek O&G Co., se 15-7s-23e, dr 600 ft.

CARTER COUNTY—E. T. Moorehead, sw 34-4s-57w, wait for 12½ inch at 350 ft.

CASCADE COUNTY—Buscher & Cassady, Johnson 1, se 19-22-3e, try for wso 1700 ft. Charles Merz et al, Sheffels 1, nw 4-21-4e, dr 1730 ft.

FALLON COUNTY—H. W. MacDonald's 1, sw 28-8n-60e, dr bel 1915 ft.

FERGUS COUNTY—Melton Corp.'s 1, sw 24-21n-17e, dr 3250 ft.

GALLATIN COUNTY — Montana Gas & Pete Corp., Adams 1, 35-1n-2e, refinancing, td 1650 ft.

GLACIER COUNTY—Finn et al, McLellan 1, nw sw 12-34-6w, rig up. Milk River Petroleum, ne 28-36n-12w, dr 3775 ft. Tarrant et al, Yunck 1, nw nw 12-34-6w, rig up, ready to spud. Tarrant et al, Browning Dev. Co.'s Reickhoff 1, ne 3-34-6w, re-cem cas 600 ft. The Texas Co., Carl E. Peterson 1, se ne se 22-36n-6w, dr 2500 ft.

GOLDEN VALLEY COUNTY—Golden Valley Oil Co., 2-6n-22, may abandon 3335 ft.

HILL COUNTY—Fargo Oil & Gas Co., 29-37n-15e, dr 500 ft.

JUDITH BASIN COUNTY — Newton & Waddington, 15-16n-10e, resuming 1140 ft.

LIBERTY COUNTY — Northland O&G Corp., Yurman 1, sw 32-33-5e, ready to resume 2815 ft. Peoples O&G Co., nw 17-35-6e, 8¼ inch landed at 2020 ft, dr res 2100 ft. Dohm et al, Millen 1, sw 10-37-5e, dr (depth not reported).

MUSSELSHELL COUNTY — Minnesota-Flatwillow Pete Co.'s 1, sw 7-11-31e, wso td 2800 ft.

PHILLIPS COUNTY—St. Cloud O&G Co., sw ne 20-34n-24e, dr 500 ft.

PONDERA COUNTY—Bell-Adams, Venetz 1, 31-27-4w, dr res 920 ft.

SWEETGRASS COUNTY—Shoshone Consolidated Oil Co., nw nw 23-2n-15e, dr 5795 ft.

TETON COUNTY—California Co.'s Sullivan 1, nw 34-28-7, run 6¼ inch at 3654 ft.

TOOLE COUNTY—Oregon Synd., se 20-36-2e, try to pull cas to plug back from 2580 ft.

VALLEY COUNTY—Opheim O&G Co., ne 28-37n-38e, mvg in.

YELLOWSTONE COUNTY—Spokane-Laurel Oil Co., sw se 30-2s-24e, sd to finance 1390 ft. Peter Antonioli, ne ne 2-2n-25e, wait for cas 2370 ft.

Completions

Company, Well and Location	Initial Production Bbls.	Depth
TOOLE COUNTY (Kevin-Sunburst)—		
Bi-State Oil Co.'s No. 5 Peterson, 11-34-1w	100	1400
(Border Field)—		
Askalta Oil Co.'s Farbo 6, sw ne 2-27-4e	700	2477

Southeastern States

Alabama Wildcat Testing Good Show of Oil and Gas

Shreveport, La.—In Lamar County, Alabama, the De Sota Oil & Gas Corporation's Gardner 1, Section 22-15s-16w, is testing a good show of oil from a total depth of 3131 feet. The top of the pink shale was encountered in the test last week at 3067 feet and a good show of oil from sand at 3125 feet. Six and five-eighths casing has been set at 2772 feet. Considerable oil of around 30 gravity continues to be bailed from the hole, and it is reported that the operators will continue to test for several days from the present depth, and if no further show develops, the hole will be deepened. The well has been drilled from 1565 feet to the present depth with cable tools.

The test is located in the northwestern part of the state near the Mississippi line, about 18 miles southeast of the Amory gas field in Monroe County, Mississippi. The location was made by H. D. Easton, consulting geologist of Shreveport, Louisiana. The pay is probably coming from the Pennington, Mississippian in age, on top of the Bangor lime.

Crude From Jackson Well Shows No Gasoline

Jackson, Miss. — Although not an official completion as yet. Henslee and others' Warner 1, 14-5n-1e, on the southeastern flank of the Jackson Field, Rankin County, on a 12 hour test flowed at the rate of 500 barrels of low grade oil and 3000 barrels of salt water, daily, from the total depth of 2470 feet. A reported refinery test shows practically no gasoline content and the question arises as to whether the oil can be marketed with present condition prevailing. The semi-wildcat is located one-half mile southwest of the Gulf Refining Company's Rainey 1, Section 13-5n-1e, drilled in 1930, and which tested some oil of the same low grade with gas and large quantities of salt water. The Henslee well is 30 feet structurally higher than the Gulf test.

The Rankin County area in the Jackson Field furnished another good gasser during the past week, making the second consecutive week that this part of the field has added a good producer. Ferguson-Fuller and others' Ivey No. 1, Section 13-5n-1e, was completed from 2377 feet with an initial open flow of 40,000,000 feet of dry gas. In the western part of Hinds County, near the Warren County line, a wildcat was junked without an official completion. The Mississippi-Minnesota Oil Company's Edwards Land Co. No. 1 was unable to get back to the bottom of the hole at 3050 feet and the hole was junked in the Wilcox formation at that depth. The top of the Wilcox is reported to have been topped in this test at around 2900 feet.

Southeastern States Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
HINDS COUNTY—		
Miss.-Minn. Oil Co., Edwards Land Co. 1, 23-6n-4w	*	3050
RANKIN COUNTY—		
Ferguson-Fuller, et al, Ivey 1, 13-5n-1e	¶40	2377

Wildcat Drilling Report

(Wells shut down not included)

LAMAR COUNTY—Stauffer & Kouri, Trs., Bond 1, se ne 18-2n-14w, dr gumbo 2435 ft.

MONROE COUNTY—P. J. McAlpine et al, Chas. Rye 1, se nw 22-15s-16w, dr slate 1650 ft.

NOXUBEE COUNTY—Thompson & Donohue, Donohue 1, 25-16n-17e, rep derrick, td 1735 ft.

ALABAMA

Wildcat Drilling Report

(Wells shut down not included)

LAMAR COUNTY—P. J. McAlpine et al, Gardner 1, nw nw 22-15s-17w, testing 3131 ft.

MOBILE COUNTY—Ohio Oil Co., Bethel 1, nw sw ne 34-3s-2w, dr shale 5700 ft. J. C. Prine et al, M&O RR 1, se ne sw, ds stuck 700 ft, td 2612 ft.

WASHINGTON COUNTY—South Ala. O. & G. Co., St. Stephens a-1, 26-7n-1w, dk.

EASTERN STATES

Completions

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
BRADFORD FIELD—		
Forest Oil Corp., Forest 103	2	....
Forest 104	2	....
Forest 105 and 106	pres.	....
Forest 111	2	....
Forest 112	2	....
Forest 113	2	....
Forest 114	2	....
Forest 115	2	....
Forest 116	2	....
Forest 117	2	....
South Penn Oil Co., Farm 4195 tr (2 wells)	pres.	....
Farm 4192 tr, (5 wells)	pres.	....
Burdic 1	2	....
Sloan-Zook Oil Co., Fee 35	pres.	....
Fee 36	17	....
Fee 37	20	....
Sloan-Zook Pet. Co., Young 2	3	....
Willett 15	7	....
Bovaird & Hamlin, Rew 50	2	....
Freeman & Stuckel, Freeman 44	3	....
Rew Oil Co., Bingham 380 tr 68	3	....
C. A. McFadden, McFadden 13	4	....
Minard Run Oil Co., Cram 18, 19, 20	pres.	....
Lane & Co., Bingham 371 tr 24	2	....
Wilson & Fitzgibbons, Bingham 368 tr 37	3	....
Corwin & Gallagher, Corwin 15	3	....
Dallas Oil Co., Dallas 104	2	....
R. O. Landers & Co., Landers 14	2	....
E. C. Tanner, Griffith 3 and 4	pres.	....
Bovaird & Enright, Quintruple 8	7	....
Brink & Brink, Bingham 268 tr 64	2	....
Bradford Producing Co., Hifler 7	5	....
Olean Petroleum Co., Fee 22	3	....
T. P. Thompson Jr., Borden 23	3	....
Bradford Producing Co., Artley 21	5	....
Towne-Melvin Oil Co., Smedley 7	7	....
Myron W. Matson, Matson 10	2	....
Dieter Bros. Dieter 6	2	....
W. A. Edison, Edison 5	2	....
Ball & Ryan, Robinson 9	2	....
Hungeville & Walker, Bingham-Parks 8	4	....
J. V. Golden, Golden 5	2	....
Bovaird & Reed, Quintruple 11	2	....
George W. Moore, Moore 3	2	....
CLARION-VENANGO FIELD—		
Moody, Underwood & Co., Shippen 4	3	....
W. E. Stewart, Stewart 3	2	....
Moody, Underwood & Co., Shippen 5	2	....
Maggio Oil, Co., Maggion 6	*	....
Boyd & McComb, Wright 4	3	....
BUTLER COUNTY—		
M. B. Finnessy, Leissy 14	¶½	....
Mitchell & Klinger, Crawford 4	2	....
TIOGA-POTTER FIELD—		
G. H. Schrack, Tassell 3	¶5	....
CENTER-MIDDLE FIELD—		
C. H. Williams, Moore 1	3	....

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Phone Fairfax 8232 Houston, Texas

HIRSCH, BROWN AND SUSMAN
Attorneys at Law
32nd Floor Gulf Building
Houston, Texas
Specializing in Oil Law and Land Law

MONITEUR DU PÉTROLE ROUMAIN
FONDÉ EN 1900 PARAIT LE 1ER ET LE 15 DE CHAQUE MOIS. RÉDIGÉ EN ROUMAIN ET FRANÇAIS

Company, Well and Location	Initial Production Bbls.	Depth
Kinley Oil Co., Alexander 1	3	....
Klinger Oil & Gas Co., Johnson 45	10	....
R. L. Thomas Jr., Grandin 16	2	....
NEW YORK		
ALLEGANY COUNTY—		
N. V. V. Franchot, Fee 24	22	....
Mary Lippert & Co., Lippert 28	2	....
Mindeler & Co., Warters 7	2	....
Forest Oil Corp. Fee 81	2	....
Fee 82	2	....
Fee 83	2	....
Gibson Merry & Co., Fee 5	2	....
Shaner & Co., Childs 19	7	....
Mix-Creek Oil Co., Fee 60 and 61	pres	....
Ryder Scott Co. Fee 7	3	....
Chief Producing Co., Rasey 12	pres	....
D. E. Quinlan, Quinlan 6	pres	....
WEST VIRGINIA		
CABELL COUNTY—		
Merritts Creek Gas Co., Ohio River Land Co. 1	¶1	3119
RITCHIE COUNTY—		
H. L. Flanagan & Co., Kiger 1	¶¾	....
Pritchard & Collins, Bradford 1	¶¾	2330
CENTRAL OHIO		
ATHENS COUNTY—		
A. D. Townsend, Riley 5	*	150
COSHOCTON COUNTY—		
Ohio Fuel Gas Co., Snyder 1	50	3297
HOCKING COUNTY—		
Ohio Fuel Gas Co., Rose 1	¶3	2520
LORAIN COUNTY—		
McMillan & Co., Jackson 1	¶9	....
TUSCARAWAS COUNTY—		
Capital Drilling Co., Little 5	24	3748
NORTHWESTERN OHIO		
WYANDOT COUNTY—		
O. J. Welker, Upper Sandusky Gas Co. 3	¶2 and 8	....
INDIANA		
DUBOIS COUNTY—		
Ohio Oil Co., Neukam Jr., 1	*	1730
JAY COUNTY—		
N. E. Masters & Co., Bailey 1	¶3	....
PERRY COUNTY—		
Conyers & Bugg, Aders 1	*	....
Franchville 4	25	....
The Ohio Oil Co., Beard 2	2	....
GIBSON COUNTY—		
Big Four O&G Co., Hope 3	110	....
KNOX COUNTY—		
Knox Engineering Co., Snapp 1	*	....
Glengarry Oil Co., Bland 1	¶1¼	615
SPENCER COUNTY—		
Dr. C. C. Taliaferro Jr., Stutiville 2	*	1300
The Van's Oil Inc., Grass 3	10	....
SULLIVAN COUNTY—		
J. G. Havens, Pitman 1	*	540
SWITZERLAND COUNTY—		
Clarence Carter, Vevay Town Lot 1	*	....
VANDEBURG COUNTY—		
John L. Drake & Co., Poor Farm 1	¶¼	....
KENTUCKY		
DAVIESS COUNTY—		
Hupp, Duff & Co., Bratcher 3	50	....
Bratcher 4	30	....
Bratcher 5	*	974
Ohio Oil Co., Mosley 1	*	....
Mida McMahan, Jones 6	40	633
Ellis & Ashby, Howard 7	50	638
Brenner & Adams, Hazelrig 1	*	700
HENDERSON COUNTY—		
Imperial Oil & Gas Products Co., Freeman 3	45	....
HANCOCK COUNTY—		
H. C. Smith, Stout 3	10	....
Kencal Oil & Gas Co., & Co., McGarvin 8	10	....
Vicars & Co., Burke 1	*	....
Chester Oil Co., Bond 1	*	....
OHIO COUNTY—		
Cumberland Petroleum Co., Brooks 9	*	....
James C. Ellis & Co., Atcheson 2	*	....
D. J. White & Co., Bickett 5	35	....
Bickett 6	15	....
Bolling & Hume, Christian 4	*	....
Christian 5	5	....
Cumberland Petroleum Co., Carden 23	*	....
Lowman, Young & Co., Miller 2	*	....
Walker & Co., Wright 1	*	....
MICHIGAN		
MIDLAND COUNTY—		
Pure Oil Co., Wampler 2	300	....
W. L. McClanahan, Inc., Caywood 1	*	....

New Equipment for the Field

MACHINERY - TOOLS CATALOGS - BOOKS

▼ ▼ ▼

1. Pumping and Counterbalancing

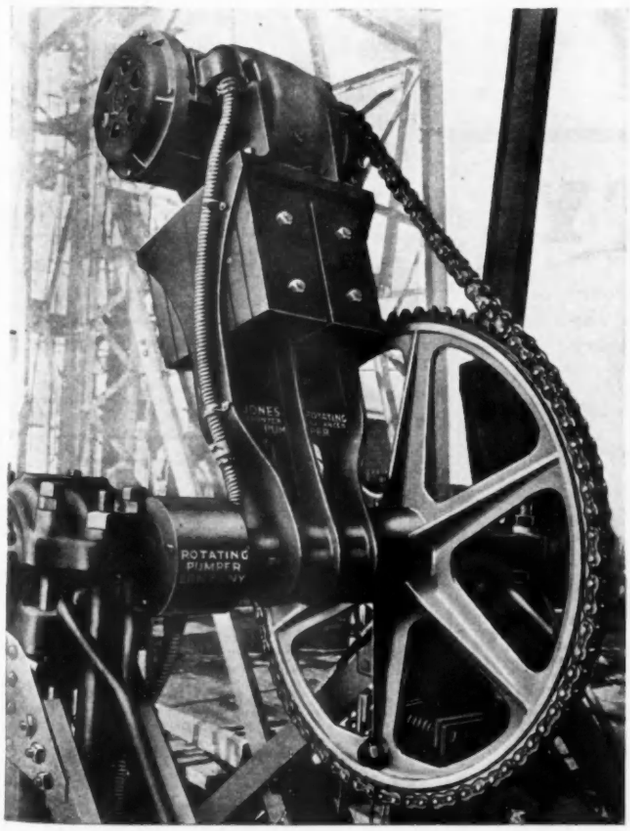
THE ROTATING PUMPER COMPANY

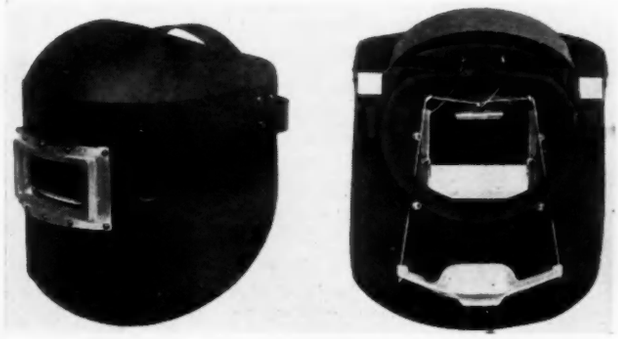
The Rotating Pumper Company of 1333 Santa Fe Avenue, Los Angeles, California announce a new and interesting development in oil well pumping and counterbalancing. The principle, which the manufacturer says has proven sound in actual practice, is the utilization of the weight of the driving equipment for counterbalancing, thus saving a duplicate structure for the counterbalance.

This company as distributors of Pacific Gear and Tool Works, Inc., products, use the Pacific Motorized gear for a prime mover, which provides a simple, compact and sturdy unit for the final connection to the crankshaft through a heavy roller chain. Since the large sprocket is prevented from rotating about the crankshaft, it is obvious that when the motor is started that the whole unit will revolve about the crankshaft. When properly located on the shaft with respect to the crank, the weight of the unit becomes a counterbalance. Means are provided for final adjustment of the desirable counterweight by removable cast iron blocks, bolted on as shown.

The manufacturer states that rigorous tests have developed no weakness in the machine, and under all kinds of operating conditions it has shown unusually high efficiency.

The unit is made in several sizes and a suitable size can be furnished for any pumping well, regardless of depth or amount of fluid to be pumped. For Pumping and Pulling a 4/2 pole motor is furnished.





Exterior and interior of the Lincoln "Weld-Fast" Head Shield. Note that protective lens is raised in view at the right.

2. Head Shield

THE LINCOLN ELECTRIC COMPANY

The Lincoln Electric Company, Cleveland, Ohio, announces the "Weld-Fast" head shield, which embodies a movable protective lens that allows the operator clear vision without raising the shield. Thus both hands are free at all times and welding can progress with few interruptions.

The protective lens is held in place in a vertical slide by a spring; slight pressure with the chin on an aluminum rest raises the lens and allows the operator to view the work or change electrodes. When pressure is removed, the lens automatically falls back into place. A stationary cover glass guards the inner lens against spatter and also protects the operator from flying sparks in case the movable lens is accidentally raised.

Sides of the shield are brought well back and close to the head. The front curves inward to assist in protecting the chin. There is sufficient room in the shield to allow the operator to wear eye glasses or spectacles without interference.

3. Pump Packing

KIBELE MANUFACTURING COMPANY

Kibele Manufacturing Company, San Antonio, Texas, announces a special line of packings designed for resistance to the elements that destroy rubber when used in boiler feed and hot oil pumps.

These packings, which can be replaced when worn beyond use, are used with pistons of the same fluid expanding principle employed by the larger sizes used for slush pump work.

— — — — — — *MAIL COUPON* — — — — — —

THE OIL WEEKLY,
Houston, Texas, U. S. A.

Please see that I am supplied, without obligation, additional information on New Equipment Items Nos._____ described in the August 22, 1932, issue of THE OIL WEEKLY.

Name . . . . . .

Company . . . . . .

Address . . . . . .

NEWS *from the* *Industry's* EQUIPMENT MAKERS

Keeping in touch with developments with Manufacturers and Supply Dealers

Supply Store Opened for Government Wells Area

Houston Oil Field Material Company, Inc., Houston, announces the opening of a new store at Freer, Texas, with a complete line of oil well supplies and specialties suitable for the Government Wells field operations in Duval County.

R. O. Morgan, formerly at the company's Refugio store, will be in charge of the new Freer store with C. P. Smith as assistant.

Crutcher W-K-M Pipe Line Sales Manager

A. S. Crutcher, who since 1926 has been prominent in the development and sale of specialized pipe line equipment, has been named manager of sales of the pipe line equipment division of the W-K-M Company, Inc., Houston, Texas. Mr. Crutcher recently returned from a three months trip to England and France, where he successfully negotiated the sale of more than sixteen carloads of W-K-M Pipe Line Equipment for use on the Iraq Pipe Line, a 220-mile project to extend from Kirkuk, Iraq, to Haifa, Palestine, and to Tripoli, Syria.

Included in the lines Mr. Crutcher will handle are W-K-M Pipe Cleaning Machines, W-K-M Pipe Handling Equipment, W-K-M Pipe Painting Machines, W-K-M Pipe Cradles, and other specialized equipment. J. D. Cummings, inventor and patentee of many items of W-K-M Pipe Line Equipment, will collaborate with Mr. Crutcher in the sale of W-K-M Equipment. Both men enjoy a wide acquaintance among pipe line company executives, engineers and field men throughout the United States and Canada. Mr. Crutcher will spend part of his time abroad, making contacts in foreign countries and advising on equipment suitable for use on foreign pipe line projects.

A. S. CRUTCHER

Notice of Hike in Price Stimulates Derrick Sales

Dallas, Texas.—Purchase orders for steel derrick requirements over the next few months were issued by companies and operators involving a large aggregate of business as result of advance notice given of a hike in quotations on steel derricks effective August 16. A price advance of 10 per cent or more, was put into effect on this date by virtually all the steel derrick manufacturers and sales representatives to offset recent boost in cost of materials used in fabricating the units, and also a high freight rate absorbed some months ago.

Derricks ranging in height from 66 to 122 feet were included in the price increase. Companies and operators with a fixed development program ahead in the East Texas oil field were particularly interested in placing their orders so as to evade the increase in price, and sales were made ranging up to 75 derricks to single companies.

DURABILITY

in buildings is a result of experienced constructors using the highest grade materials obtainable. Because our buildings have this quality they are favorites of the Oil and Gas Industry.

Cottages	Valve Houses
Bunk Houses	Out Houses
Field Offices	Garages
Meter Houses	Filling Stations
Warehouses	Summer Cottages
Mess Halls	Large Residences

HOUSTON READY-CUT HOUSE CO.

Successors to **CRAIN READY-CUT HOUSE CO.**

HOUSTON, TEXAS

THE FORT WORTH LABORATORIES

Field gas Testing. Analysis of oil field brines, gas minerals and oil. Sell Thermometers, Hydrometers and Laboratory Glassware.

F. B. Porter, B. S., Ch. E., Pres.
R. H. Fash, B. S., Vice-President
828½ Monroe St., Ft. Worth, Tex.

HOTEL LENOX

140 North St., near Delaware

BUFFALO, N. Y.

Right in the Center of Things

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Large, homelike rooms and the best food in town. Rates, Single $2 to $3.50; Double $3 to $6. Family Suites $6 up.

FREE—*Excellent Official AAA Road Maps.*

Write CLARENCE A. MINER, *Pres.*

Squeaks *from the* BULL WHEEL

"Every time I kiss you, it makes me a better man."

"Well you don't have to try to get to heaven in one night."

Candidate (at end of long speech)—And in conclusion, remember that a man is known by his works.

Voice from Rear—Well, yours must be a gas works!

A service station man was charged with assault and battery and brought before the judge.

Judge (to prisoner): "What is your name, occupation and what are you charged with?"

Prisoner: "My name is Sparks. I am an ignition expert and I am charged with battery."

Judge (after recovering his speech): "Officer, put this man in dry cell."

"What's the charge for this battery?"

"Three amperes."

"How much is that in American money?"

"Was that new antiseptic mouthwash you tried as powerful as they said it was over the radio?"

"Powerful? I should say so! I used it just once and see what it did! It ate the filling out of four lower teeth, softened up my upper plate so that the teeth all fell out and I swallowed them, cleaned out my tonsils and adenoids at one blow, furred my tongue till it looks like a sheepskin coat, went up my nose and brought out a syringe a specialist had lost several years ago, penetrated my ears and restored my original hearing so I have to hear everything my wife says, sharpened my eyesight till I can see a creditor a mile away, sweetened my breath till people passing take me for a bed of lilies of the valley in bloom, gave my voice the honey sweetness of a radio. Cherrio, made my hair curl as though I had used a curling iron, brought me a dozen offers of marriage from strange women and gave me such a general air of prosperity that the tax assessor doubled my taxes."

Young Eggbert figured the new idea he'd just thought up entitled him to a raise, so he sprang into the boss' office and immediately began: "Boss, I'm fired with enthusiasm—"

"How did you find out?" asked the boss. "I didn't intend to tell you till pay-day."

Joe Schewe tells of a sign in the Abington Memorial Hospital in Philadelphia reading "Maternity Ward, No Children Allowed."

"Where's the car, Dad?" asked the son of an absent-minded professor.

"Why, dear me. I really don't know," he said, scratching his head in an effort to recall the past. "Did I take it out?"

"You centainly did. You drove it downtown this morning."

"Well, now, that is quite remarkable," said the professor. "I remember now that after I got out I turned 'round to thank the gentleman who had given me the lift and wondered where he had gone."

"When I put the coat on for the first time and buttoned it up, I burst the seam down the back."

"Yes; that will show you how well our buttons are sewed on."

An English guest, at the Ambassador Hotel in Los Angeles, after checking out, had a few minutes to spare, and was chatting with the clerk.

Guest: "Oh, I say, do you know any good stories."

Clerk: "I can't think of any, but I'll give you a conundrum. My mother gave birth to a child: it was neither my brother or my sister. Who was it?"

Guest (after deep reflection): "I jolly well give up. Who was it."

Clerk: "It was me." (They speak that way in Los Angeles.)

Guest: "Haw, haw, that's a good one. I must remember that."

And he did. Hear him telling it.

"Oh, I say, old man, I heard a jolly conundrum the other day. My mother gave birth to a child: it was nyther me brother nor me sister. Who was the blither?"

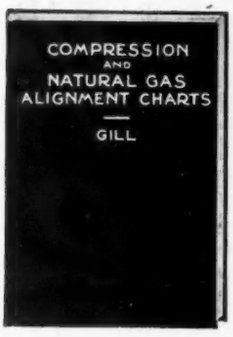
"I don't know. Who was it?"

"Haw, haw; you don't but I do. Haw, haw—it was the clerk in the Ambassador Hotel."

Jimmy the errand boy wise-cracks thusly: "The difference between a hair dresser and a sculptor is that while the hair dresser curls up and dyes, the sculptor makes faces and busts."—From THE INK SPOT.

COMPRESSION
AND
NATURAL GAS ALIGNMENT CHARTS

By THOMAS T. GILL



The charts in this book have been found useful in solving field problems arising in connection with the measurement, compression and transmission of natural gas, and in the manufacture of natural or casinghead gas. As many of the formulas in common use in natural gas operations are of an impirical nature, with constants that must be evaluated under varying conditions, it will be found that alignment charts are sufficiently accurate for nearly all purposes except for metering large quantities of gas, and here they serve as an excellent check on other calculations. Contains 41 charts, 65 problems. Price $3.50 Postpaid.

Send check to the .

GULF PUBLISHING COMPANY

P. O. Box 1307

HOUSTON, - - TEXAS

CATALOGS BULLETINS

Helpful Publications Which Manufacturers Will Be Glad to Send Free for the Asking.

Expansion Joints

Croll-Reynolds Engineering Company, Incorporated, 17 John Street, New York, New York, has for distribution an eight-page illustrated bulletin titled "Flexodisc Expansion Joints," featuring packless expansion joints suitable for a variety of conditions including high temperature steam or corrosive fluids.

Geophysical Abstracts

The United States Bureau of Mines, Department of Commerce, Washington, D. C., recently issued Information Circular 6638, a 27-page mimeographed compilation by Frederick W. Lee, senior physicist of the Bureau of Mines presenting "Geophysical Abstracts" of papers published in domestic and foreign journals and books. Almost 30 men cooperated in compilation of the abstracts, which cover the subject of geophysics in a comprehensive manner.

Saybolt Type Viscosimeter

A leaflet describing a new and improved model of the Aminco Saybolt type Viscosimeter, just announced by the American Instrument Company, 774 Girard St., N. W., Washington, D. C., is available on request. The leaflet gives full particulars on the new instrument which is similar to previous models now in use in the laboratories of the U. S. Bureau of Standards, the Army Air Service and Motor Transport Corps, the Naval Research Laboratories and the Bureau of Public Roads, as well as the private laboratories of many producers and refiners.

Centrifugal Pumps

Centrifugal pumps for large outputs, as in water works pumping stations, are described in Catalog B-4, issued by the De Laval Steam Turbine Company, Trenton, New Jersey. The distinguishing features of these single stage, double suction pumps include a casing split horizontally in the plane of the axis of the shaft, with piping connections in the lower part of the casing, so that the internal parts are at once accessible upon removing the casing cover, and the protection of the main members of the pump at points where wear may occur by renewable wearing parts, the most important of which are the wearing rings which protect the casing and impeller at the joints where the suction chamber is separated from the discharge chamber. These wearing rings are of the labyrinth type and, it is claimed, allow only one-third as much leakage with the same radical clearance as do flat rings; also, they wear much less rapidly. Among the pumps illustrated are geared turbine driven pumps delivering 75,000,000 gallons per day against 150 foot head; and motor driven pumps of 30,000,000 gallons per day capacity against 250 foot head, which, on the efficiency tests, showed a combined motor and pump efficiency of 84.5 per cent.

Die-Heads and Threading Machines

Landis Machine Company, Waynesboro, Pennsylvania, has just issued a new and attractive catalog showing the company's entire line of products. The catalog is a compilation of separate bulletins, each of which thoroughly describes one item of equipment. Products covered in the catalog include the company's: The Landis Chaser; Lanco Head for automatic, semi-automatic and hand-operated threading machines; Landis Standard Rotary Die Heads; Landis ½", 9/16" and ¾" Threading Machines; Landis 1", 1½", 2" and 2½" Threading Machines; the 1" and 1½" Landmaco Threading Machines; Landis 3" and 4" Threading Machines; Landis 1" and 1½" Triple Head Bolt Factory Threaders; Landis ¾" and 1" Automatic Forming and Threading Machines and Landis Models Y and No. 2 Chaser Grinders.

Temperature Controllers

The Foxboro Company, Foxboro, Mass., has recently issued an informative booklet entitled "Temperature Controllers" which describes the operating principle and construction features of Foxboro controllers.

Bridgeport Bulletin

The Bridgeport Machine Company, Wichita, Kansas, is again issuing a house publication for customers and friends under the title of the Bridgeport Bulletin, issued fortnightly. Several months ago the company discontinued the publication of the Bridgeport Driller. The new publication contains the company's list of used and reconditioned tools and its offerings in used casing, line pipe, drill pipe, etc. It will be sent free to anyone engaged in the oil industry.

USE THIS COUPON
(Address manufacturer direct)

.....

.....

Gentlemen:

Please send to me, without obligation, free booklet described in THE OIL WEEKLY of August 22, 1932.

NAME .....

COMPANY .....

ADDRESS .....

Index to Advertisers

American Association of Petroleum Geologists .....
American Brake Materials Corporation .....
American Cable Co. 4
American Iron & Machine Works....
American Sheet & Tin Plate Co. ....
American Steel Wire Co. .....
Athey Truss Wheel Co. .....
Atlas Sales Corp. .....

Baker Hotels .....
Baker Oil Tools, Inc. 39
Baroid Sales Company .....
The Barrett Company .....
William M. Barrett, Inc. .....
The Bartlett Hayward Company.....
Beebe Bros. .....
Bowen Air Lines 36
Bradford Motor Works .....
The Brewster Company....Second Cover
Bridgeport Machine Company .....
Byron Jackson Company .....

Cameron Iron Works .....
Caterpillar Tractor Company .....
The Continental Supply Company ....
Darling Valve & Manufacturing Co...
E. M. Dart Manufacturing Co. .....
De La Vergne Engine Company.....
Dewitt Hotels .....
Diamond Metal Company .....
S. R. Dresser Manufacturing Co. ....

Emsco Derrick & Equipment Co. ....

Flexible Steel Lacing Company.....
Fort Worth Laboratories 60

Gaso Pump & Burner Manufacturing Company 3
General Electric Company 15
H. P. Gott Manufacturing Co. .....
The Guiberson Corporation .....
Gulf Publishing Company 6
Gulf States Utilities Company .....

R. B. Hall & Company .....
Halliburton Oil Well Cementing Co...
Hardway & Cathey 58
Harrisburg Pipe & Pipe Bending Co.
Haynes Stellite Company .....
Hazard Wire Rope Company .....
C. M. Heeter Sons & Company.....
Hirsch, Brown & Susman 58
Charles N. Hough Manufacturing Co.
Hughes Tool Company .....Front Cover
Humble Oil & Refining Company.....
Houston Ready-Cut House Company.. 60

International-Stacey Corporation.....

Byron Jackson Company .....
Jarecki Manufacturing Company.....
The S. M. Jones Company .....
Jones & Laughlin Steel Corporation..

Kibele Manufacturing Company .....

Larkin Packer Company 58
Hotel Lennox 60
J. H. McEvoy & Company .....
Maloney Tank Manufacturing Co.....
Moniteur Du Petrole Roumain..... 58
Lee C. Moore & Company .....

The National Supply Co. .....
National Tube Company .....
Norvell-Wilder Supply Co. .....

Oil Center Tool Company .....
Oil Well Supply Company .....
Oklahoma Contracting Corporation...
Oklahoma Biltmore Hotel .....

The Parkersburg Rig & Reel Co. ....
Petroleum Rectifying Company 17
Phillips Petroleum Company .....
Picadilly Hotel .....
Pittsburgh Steel Company 31
Price-Trawick, Inc. .....

Reading Iron Company .....
Reed Roller Bit Company .....
The Republic Rubber Company .....
Republic Steel Corp. .....Fourth Cover
The Ruberoid Company .....

Shell Union Oil Corp.....Third Cover
South Chester Tube Company .....
Sperry-Sun Well Surveying Co. .....
Jesse R. Stone and Lester B. Clark.. 58
Sun Oil Company .....

Texas Electric Service Company .....
Thermoid Rubber Company .....
Tretolite Company .....
Trimont Manufacturing Company ....

Union Wire Rope Corporation .....

Waukesha Motor Company .....
Wickwire-Spencer Steel Company ....
Williamsport Wire Rope Company....
J. H. Williams & Company.....
Wilson Supply Company 33
Youngstown Sheet & Tube Company..

SHELL PRODUCTS

No other Gasoline so closely follows the weather . . .

WHETHER he drive in tropic heat or arctic cold, over the mountain passes of the Northwest, or through the bottom lands of the South, the American motorist's engine will run smoothly, sweetly all the way . . . so long as he fills his tank at Shell stations.

Shell chemists work to self-imposed standards far more rigid than the requirements set up by the United States Government or the standards in general use in the industry. Shell refineries produce gasoline especially adapted to season, altitude, and driving conditions in the territory *where*, and *when*, it is to be delivered.

Equally meticulous standards govern the production of all Shell products. Every item in Shell's complete line of petroleum products is held to a uniformly high level of quality by precision control, developed to a degree unknown before the advent of the Shell research laboratories.

Specifying Shell, the user is assured unfailingly satisfactory performance no matter *where* he buys, no matter *what* his particular operating conditions.

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FOR PIPE LINES BORN WHEN MONEY IS TIGHT

Every pipe line is an engineering job, and as such must be figured with a reasonable margin of safety—to carry certain pressures—to withstand soil corrosion. Just what that margin of safety must be depends to a large extent upon the kind of pipe used.

Republic Electric Weld Pipe reduces the number of variables. The weld, according to the U. S. Bureau of Standards, is as strong as the pipe wall. The wall thickness is uniform—no thin spots to be figured on and dictating a larger margin of safety. Consequently, oftentimes a pipe of slightly lighter wall can safely be employed.

That's why we say that when pipe line dollars must be squeezed, Republic Electric Weld Pipe can save you money—in first cost, in handling cost, in transportation cost—and with no sacrifice in quality or safety of the line.

Any engineer conversant with pipe line design will quickly grasp the importance of these facts. A 64-page book which we have prepared to spread the story of this money and trouble saving pipe will gladly be sent upon request.

REPUBLIC STEEL CORPORATION

GENERAL OFFICES YOUNGSTOWN, OHIO

REPUBLIC
ELECTRIC WELD
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